



CALGARY BID EXPLORATION COMMITTEE

Feasibility Study and
Conceptual Master Hosting Plan
presented to Calgary City Council

Submitted By:

Rick Hanson, Chair

Catriona Le May Doan, Vice-Chair

Scott Thon, Vice-Chair

Karen Ball

Gene Edworthy

Dale Henwood

Patrick Jarvis

Maureen Killoran

Chris Lee

Wilton Littlechild

Sheila McIntosh

Rod McKay

Patti Pon

Irfhan Rawji

Sue Riddell Rose

Beckie Scott

Laurie Stretch

MAY 31, 2017

550-400 3rd Avenue SW

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 - public opinion research

 - stakeholder consultation

 - financial analysis and modeling

 - economic impact analysis

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It was truly a team effort.

With our gratitude,





Rick Hanson




Chair, Board of Directors

Calgary Bid Exploration Committee

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ACRONYMS AND TERMS



A

Accredited seating – seating assigned to press, athletes and Olympic family

Agenda 2020 – see Olympic Agenda 2020

Airbnb - a broker of online marketplace and hospitality services enabling people to lease or rent short-term lodging

Alpine Speed Events – Downhill and Super G alpine ski speed events

Athletes' Village – a safe and secure accommodation complex reserved exclusively for athletes and team officials

ATO – Additional Team Officials; accredited officials who are considered essential to the administration of a delegation but whose accommodation and dining costs are covered by the National Olympic Committee

B

Barrier-free – the absence of obstacles in the environment, allowing persons with disabilities safer and easy access to buildings, use of buildings and related services

BCG – Boston Consulting Group; external advisors to CBEC

BidCo – the entity that would organize and execute a Calgary Olympic bid if pursued

BIO – Broadcast Information Office

Blow out gates – emergency exit gates

BOH – Back of House; areas not accessible by spectators and includes all operational space

BRD – Broadcast

BRZ – Business Revitalization Zone; where businesses in the area jointly raise and administer funds for projects and promotional activities

Buildout – construction for building expansions

C

CBEC – Calgary Bid Exploration Committee; the volunteer committee tasked by the City of Calgary and Tourism Calgary to undertake a feasibility study for hosting the 2026 Olympic and Paralympic Winter Games

CCES – Canadian Centre for Ethics in Sport

CCR – Commentator Control Room

CCTV – Closed Circuit Television

CMLC – Calgary Municipal Land Corporation

CNG – compressed natural gas

COC – Canadian Olympic Committee; Canada's National Olympic Committee, which has the sole authority from the IOC and Government of Canada to promote the Olympic Movement in Canada and access Olympic rings for use and licencing within the country

Compound – all indoor and outdoor space related to a venue, including parking areas

COP – Canada Olympic Park, operated by WinSport

CPC – Canadian Paralympic Committee

CPI – Consumer Price Index

CPS – Calgary Police Service

CPTED – Crime Prevention Through Environmental Design; multi-disciplinary approach to urban design whereby the physical environment is designed with a view to deterring crime and nuisance activities

CRL – Community Revitalization Levy

CSIS – Canadian Security Intelligence Service

D

Daily Live Site – an Olympic-themed site that provides live broadcasts of Olympic events and ceremonies to the public

Dasher Boards – boards, glass, connectors and protective coverings that make up the boards around the ice in a hockey arena.

E

EGRESS – exit

EIA – Economic Impact Assessment; a method of assessing the economic impacts of an investment including GDP growth, labour income and government tax revenue

F

Fieldhouse – a large building that houses athletic facilities

FIS – Fédération Internationale de Ski (International Ski Federation)

FOH – Front of House; areas accessible by spectators

FOP – Field of Play; area where the competition takes place and several areas directly adjacent

FTE - Employment on a full-time-equivalent basis; this concept converts the hours worked of part-time workers into the hours worked by full-time employees

G

Games – a less formal term referring to any of the modern Olympic Games; used interchangeably with OPWG (see below)

GDP - Gross Domestic Product; a measure of the unduplicated value of the goods and services generated over a given period; it measures value added, calculated as the difference between total revenue and the sum of expenses on parts, materials, and services used

GHG – greenhouse gas

H

Heat Box – speed skating on ice area; included in the Field of Play

Hockey 1 - the venue used for men's and women's hockey games that are projected to draw enough spectators to substantially fill a large venue; all medal round games are played in the Hockey 1 venue

Hockey 2 - the venue for men's and women's hockey games that are projected to draw fewer spectators than would substantially fill the Hockey 1 venue

Host City Contract – legal agreement between the IOC, the city chosen to host the Games and its associated NOC (in Canada's case, the COC) which outlines the responsibilities, requirements and deliverables of all parties (see *Appendixes 4E and 4G*)

HOV – high occupancy vehicle

HVAC – heating, ventilation and air conditioning

I

IBC – International Broadcast Centre

ICR – International Competition Rules

IDI – in-depth interview

IF – International Federation; one designated for each Olympic event

IMMG – International Major Multisport Games; large multisport games hosted in Canada and governed by an international sport franchise holder with links to International Federations

IOC – International Olympic Committee; the rights holder who ultimately bestows the right to host the Games to the chosen city within their prescribed criteria

IPC – International Paralympic Committee

J

JMPA – Joint Marketing Partnership Agreement; an agreement signed between the NOC (in Canada's case the COC) and the OCOG outlining how marketing rights and licensing of the Olympic rings related to the Games will be managed

L

LED – light emitting diode for use in lighting fixtures

LEED® – Leadership in Energy and Environmental Design®; internationally-recognized rating system to evaluate environmental performance of buildings

Legacy – benefits of bidding and hosting that accrue beyond the Games themselves and build sustainable capacity for the local, regional and national sport system; these may include, but are not limited to: programming, new or improved infrastructure, physical assets or equipment, and knowledge-sharing

LM – linear metre; unit of measure

LZ – transportation load/off-load zone

M

MFP – Master Facilities Plan

MHP – Master Hosting Plan

MMC – Main Media Centre

MPC – Main Press Centre

MZ – mixed zone; location where media interview athletes immediately post-competition

N

NHL – National Hockey League

NOC – National Olympic Committee; national constituent of the Olympic Movement – subject to the controls of the IOC, NOCs are responsible for organizing their country's participation in the Olympic Games

NPC – National Paralympic Committee

NSOs – National Sports Organizations; the national governing bodies for their sports in Canada

O

OBS – Olympic Broadcasting Service

Observer Program – a component of the IOC’s candidature process whereby prospective bid cities are invited to attend the Games to gain experience to prepare for potentially hosting; for 2026 bidders it will be the PyeongChang 2018 Games

OCOG – Organizing Committee for the Olympic Games

OF – Olympic Family; refers to organizations under the Olympic umbrella including OCOGs, International Federations, IOC sponsors and partners

Olympic Agenda 2020 – IOC’s roadmap for the future of the Olympic Movement; the principles include making the bidding process less costly and complex, and increasing transparency and flexibility with respect to what’s best for the bidding cities (see *Appendix 4B*)

Olympic Charter – code of rules and principles governing the International Olympic Committee and Olympic Movement

Olympic Movement – individuals and organizations guided by the Olympic Charter and led by the International Olympic Committee; these include national and international sports federations, as well as athletes

Olympism – the philosophy of sport, culture and education behind the Olympic Movement

OPP – Ontario Provincial Police

OPWG – Olympic and Paralympic Winter Games

Overlay – temporary elements that are added to more permanent buildings to enable the operation of major sporting events or festivals (cabling, fencing, etc.)

P

PGS – parallel giant slalom

PIDS – Perimeter Intruder Detection Systems

Polyclinic – a clinic that provides both general and specialist examinations and treatments to outpatients

PSA – pedestrian security area

R

RCMP – ROYAL CANADIAN MOUNTED POLICE

RHB – RIGHTS HOLDING BROADCASTER

S

Seat kills – seats that are non-marketable usually due to obstruction of view

Security footprint – total event area surrounded by a perimeter fence or other security measures

Subvention - a grant of money, as by a government or some other authority, in aid or support of some institution or undertaking

Super G - Super giant slalom, a racing discipline of alpine skiing

T

TBO – ticket box office

Through put rate –the speed at which spectators can move into or out of a venue

TOP – The Olympic Partners; sponsors who sign contracts directly with IOC to obtain the exclusive right to worldwide Olympic marketing rights

Triple Bottom Line – an approach for assessing sustainability used by the City of Calgary through examination of economic, social/cultural, and environmental factors

V

VANOC – Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games; the OCOG responsible for organizing the 2010 OPWG

VIK – value-in-kind; a type of sponsorship in which the sponsor donates goods and services as opposed to a monetary contribution

VMC – Venue Media Centre

VOC – Venue Operations Centre

VRBO – Vacation Rental By Owner

VSA – Vehicle Screening Area

W

WADA – World Anti-Doping Agency

WinSport – Winter Sport Institute at Canada Olympic Park

Y

YOCOG – Youth Organizing Committee for the Olympic Games



SECTION 1. WINTER GAMES AND CALGARY IN 2026 - WHAT IF?



1.0 RECOMMENDATIONS

CBEC will be presenting its recommendations on July 24th to City Council.



1.1 PROJECT SCOPE

As the 30th anniversary of the Calgary 1988 Winter Olympics approaches, the legacy of those first Canadian winter games is remarkable. The facilities built for 1988 are still in use, introducing successive generations to winter sport and hosting high performance competitions. The sting of again failing to win a gold medal on home soil (as was also the case in the Montreal 1976 Olympics) led to a focused investment in sport in Canada. Progressively better Olympic performances culminated in the triumph of Canada's world-leading 14 gold medals in the Vancouver 2010 Games.

With 1988 memories fading, facilities aging, and the Calgary economy struggling, a handful of civic leaders began to ask themselves whether a bid for the 2026 Olympic and Paralympic Winter Games (OPWG) might be a way to revitalize Calgary's winter sports legacy for a new generation and to shape the city in a new and different way than was achieved in 1988. However, considering the much longer list of events, the addition of the Paralympic Games, and the modern security requirements, being an Olympic host city is a larger undertaking compared to 1988. In accordance with a June 2016 resolution of Calgary City Council, the City appointed a group of volunteer civic leaders (see *Appendix 1A*) to explore the potential of bidding and hosting the 2026 OPWG and to make a recommendation to City Council in mid-2017.

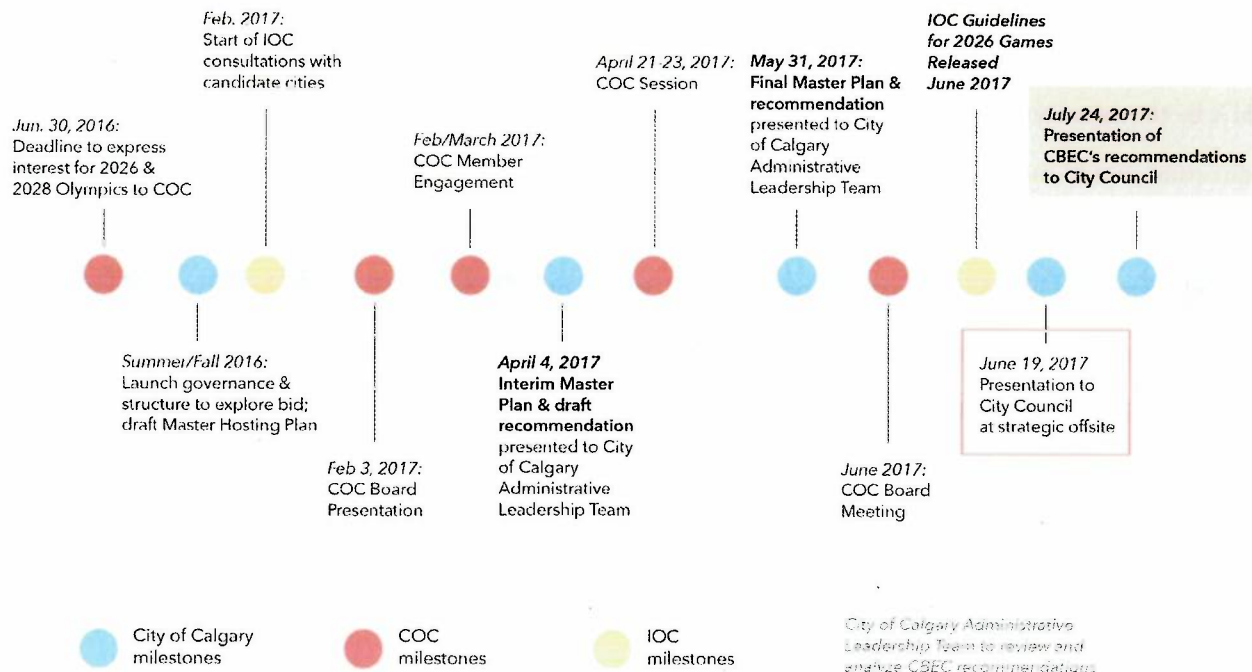
On September 19, 2016, the Calgary Bid Exploration Committee (CBEC) was formed as a partnership between The City of Calgary and Tourism Calgary. The mandate was to, “...prepare a feasibility study and conceptual Master Hosting Plan for The City of Calgary regarding a bid for the 2026 Olympic and Paralympic Winter Games (OPWG).”

Our undertaking is to answer whether hosting the 2026 OPWG would be a good investment for the City of Calgary. Most importantly, for a bid and hosting to be right for Calgary and region, the Olympics must fit in to Calgary’s vision for itself. Can hosting the Olympics and Paralympics in 2026 help Calgary accelerate the realization of its aspirations?

Importantly, for a bid and hosting to be right for Calgary and region, the Olympics must fit in to Calgary’s vision for itself.

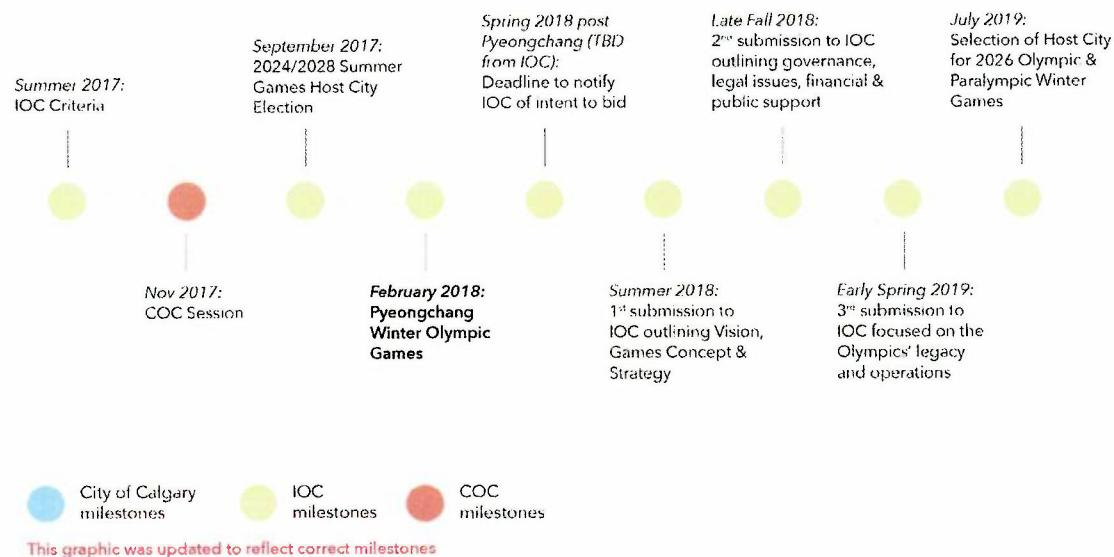
Figure 1.1 shows the timeline and progress for CBEC’s work. That timeline culminates with our presentation to City Council on July 24, 2017 and Council’s vote on our recommendations. We have delivered our recommendations in adherence to the original timelines set almost a year ago. That timeline was built around the need to send a letter of intent to bid to the International Olympic Committee (IOC) by September 13, 2017.

Figure 1.1 Work timeline for CBEC



The IOC has informed us that the September 13, 2017 deadline has changed for the letter of intent from prospective bid cities for the 2026 OPWG is now anticipated to follow the PyeongChang 2018 OPWG. Figure 1.2 expands the timeline beyond the July 24, 2017 Council meeting and reflects an expected IOC letter of intent deadline of March 2018.

Figure 1.2 Anticipated IOC timelines through the 2026 OPWG bid



Notwithstanding the change in timelines, we believe adhering to the initial timetable for our report provides flexibility and options for City Administration and Council to address the results of Council's final decision. This is particularly important given that dialogue and agreement with other levels of government and endorsement of a Calgary bid – should it be approved by the Canadian Olympic Committee (COC) – are required to move forward with Council's final direction should the direction from Council be to move forward with a bid.

In our exploration, we heard from both proponents and opponents of bidding. This included many individuals and organizations in Calgary and the Bow Valley Corridor. We also met with key Olympic stakeholders, including representatives from the Canadian Olympic Committee (COC), the IOC and the Canadian Paralympic Committee (CPC), and the leader of the "No Boston Olympics" movement. Understanding differing perspectives is essential to helping us form a balanced recommendation to Council. To learn more about our public and stakeholder engagement results, please see [Section 2: Public Engagement and Community Impact](#) and [Section 3: Stakeholder and Government Relations](#).

Our exploration, analysis and efforts were focused on answering two central questions:

- 1) Is it feasible for Calgary and region to successfully host the 2026 OPWG in a financially responsible manner?
- 2) If so, is it prudent for Calgary and region to make a bid for the Games?

To answer the question of feasibility, CBEC had to consider whether a Calgary 2026 OPWG can:

- Satisfy the IOC's Olympic Agenda 2020 (See *Appendix 4B*) and COC requirements ([See Section 11](#)).
- Identify the circumstances under which the revenues and costs associated with operating the 2026 OPWG break even ([See Section 6](#));
- Minimize Games-specific infrastructure investments and leverage Calgary and the region's recently completed and planned projects ([See Section 4](#));
- Define a security framework or model that yields reasonable security costs and minimizes risk ([See Section 7](#)).
- Aim to have facilities be sustainable with any required government funding aligned to existing government plans and policies. ([See Section 3](#))

If the answer to the first question on feasibility is yes, then, in our view, the second key question is whether it is prudent for Calgary and region to bid. Winning the bid is not guaranteed and bid preparation is a significant effort, with costs averaging approximately C\$40 million for the past four Winter Games.

A bid would be considered prudent if:

- A bid would add meaningful value to Calgary regardless of the outcome ([See Section 8](#)).

A coalition of support exists from the public and key stakeholders for the proposed bid including Indigenous

- Peoples for whom historical and cultural rights must be recognized in both the bidding and hosting process ([See Section 2](#) and [3](#)).

The legacy of the 2026 OPWG would contribute to Calgary and area's long- term vision of itself including economic, social, cultural and environmental benefits ([See Section 9](#)).

Regardless of our recommendations or Council's decision, as a result of this work CBEC will have provided the City with the following:

- A "state of repair" assessment of the winter sport facilities in Calgary and the Bow Valley Corridor (Canmore, Banff and Lake Louise).
- Scoping level cost estimates to maintain the legacy sports venues from the 1988 Calgary Winter Olympics.
- Concepts and scoping level costs for transportation options connecting Calgary and prospective 2026 OPWG mountain venues.
- A reflection on citizens' opinions and general concerns relating to the Games that can inform future planning and potential bidding for large-scale sporting events.

1.2

GAMES DESCRIPTION

While the first modern Olympic Games were held in Athens, Greece in 1896, the first Olympic Winter Games were held in Chamonix, France in 1924. After Chamonix, the Winter Olympics were held every four years except in 1940 and 1944 due to World War II. Beginning with the 1994 Winter Olympics, the IOC opted to offset the scheduling for the Olympic and Winter Olympic Games.

The transition to a fully coordinated Olympic and Paralympic Games has taken place gradually. The 1992 Paralympic Winter Games were the first to use the same facilities as the Olympic Winter Games. Today, the Paralympic Games are a strong and vibrant component of the overall program and are hosted approximately two weeks after the close of the Olympic Games, using the same venues and facilities. The two events effectively comprise a 50-day-long celebration of sport.

The 1988 Games in Calgary marked many changes for the Winter Olympic Games, including extending the Games to 16 days and introducing a number of demonstration events that have since become medal events. Demonstration sports were a part of the Olympic Games since 1912 and were introduced to allow each host city to have a sport entered onto the Olympic program that had unique relevance to that country. Post 1992, demonstration sports have not been permitted, as the size and scale of the OPWG grew too large to accommodate additional sports, athletes, officials and facilities.

Since 1988, the OPWG have continued to expand in both size and scope. In 1988, nearly 1,400 athletes from 57 countries (a record number of countries at the time) participated in the Calgary Winter Olympics. Although Calgary did not host the 1988 Winter Paralympics, the host city of Innsbruck, Austria welcomed 377 Paralympic athletes from 22 countries.

The projected size of the 2026 Games has almost doubled from 1988 as set out in Figure 1.3. In addition, a further 700 Paralympic athletes from close to 50 countries are expected to participate in the 2026 OPWG. The Paralympics are now held after the Olympic Games in the same host city. As the Games have grown, so too has the international attention and media presence.

Figure 1.3 Increase in size and scope of the Games since 1988

	1988	2026	% increase
# of participating countries	~57	~80	40 %
# of Olympic events	~46	~102	121 %
# of athletes	~1,400	~3,000	114%
# of media	~6,800	~15,000	120%
# of spectators	~ 1.50 million	~1.67 million	25%

Detailed tables showing the planned roster of events for a prospective 2026 OPWG and attendance estimates are provided in [Section 4](#).

As the OPWG have changed and expanded, the associated requirements have grown accordingly and logistics have become more complex. International media coverage and broadcast requirements have also expanded as have the hosting needs of the many athletes, spectators and media that come to the host city. This evolution impacts facility and other requirements for competition venues. For a detailed analysis of the Master Facilities Plan (MFP), including analysis of IOC and International Paralympic Committee (IPC) requirements that must be met to stage the 2026 OPWG, see [Section 4](#).

1.3

REASON AND TIMING

Why explore bidding for and hosting the 2026 Games now?

There has been consideration of bidding for a second Winter Olympic Games in Calgary since the early 2000s. Although many Calgarians and residents of the Bow Valley Corridor remember the events of the 1988 Games and are quick to bring to mind the incredible spirit of community and celebration that the Games promoted, much has changed in the past 30 years. Since 1988, Calgary's population has more than doubled and the demographics have changed. Today, Calgary is home to over 1.2 million residents of which approximately 26 per cent are immigrants. Along with this growth in population and variation in demographics, Calgary's need for sports and entertainment venues has grown and transformed. Venues need to accommodate ease of accessibility and opportunity for all who wish to engage with cultural, sports, and recreational opportunities. To put Calgary's largest sport entertainment venues in context, McMahon Stadium, a multi-purpose field sport venue, was built in 1960 when Calgary had 235,000 residents. The Scotiabank Saddledome, Calgary's primary indoor arena, opened in 1983 when the population was 620,000. By 2026, all venues used to host events for the 1988 Winter Olympics will be at least 40 years old. This is an appropriate time to evaluate and make decisions on extending the life span of these venues for future generations.

WinSport, which in 1988 hosted ski jumping, bobsleigh and luge as well as numerous ski demonstration sports, currently hosts 1.2 million visitors a year. The sliding track at WinSport has had over 225,000 runs since winter 2004, and has hosted 19 Luge World Cups as well as 75 national, North American and international bobsleigh and skeleton events. However, after 30 years, mechanical replacements and some structural capital maintenance are required for the track to continue operating reliably and safely (see [Section 4](#) for more details).

In addition to the sliding track, WinSport has hosted 22 freestyle ski and snowboard World Cup events since 1989 and is seen as a premier global competitive and training venue for these disciplines. WinSport is also strategically positioned in an urban environment with convenient access to a major international airport as well as nearby work and educational opportunities. Additional investment in the field of play for these sports, as outlined in [Section 4](#), will serve to cement Calgary's position as a premier winter sport city.

The Olympic Oval is home to the 'fastest ice in the world' (thanks to the climate-controlled facility and the effects of high altitude) and attracts the best Canadian and international athletes to train and compete at this world-class facility. Every year, the Olympic Oval welcomes thousands of visitors, public skaters, athletes and coaches. The Oval continues to be regarded as one of the world's best speed skating venues and a preferred training facility for speed skating teams across the globe. The Oval, which opened in 1985, needs capital maintenance -- including work to the concrete slabs under the Oval itself -- if this facility is to remain one of the top sport and recreational facilities of its kind.

Mount Allan, now known as Nakiska Ski Resort, was selected in 1983 as the alpine venue for the 1988 Winter Olympics, including the demonstration events of freestyle moguls skiing. The ski resort opened in 1986 and pre-Olympic races on the North American Cup circuit (Nor-Am) were held that December with further World Cup downhill and super G races in March 1987. Since then, Nakiska hosts over 100 events each winter, that range from world-class to community non-profit sport and club events for a variety of disciplines, including ski cross, traditional alpine and snowboard. In recent years, the resort operators have embarked on a number of improvements, including snowmaking enhancements, the creation of a dedicated training run, the installation of a new high-speed quad lift and the development of new ski trails.

Owned and operated by the Government of Alberta, the Canmore Nordic Centre continues to be a world-class, year-round venue for recreational and high performance sport opportunities. Since hosting cross-country skiing, biathlon and Nordic combined events during the 1988 Winter Olympics, the Canmore Nordic Centre has had a long successful history hosting over 20 International and 30 Continental events, along with numerous regional and local events. With 60 kilometres (37 miles) of world-class cross-country and biathlon trail systems, which meet international Nordic

competitive standards, Canada's national training camps for biathlon and cross-country ski teams, are located at the Nordic Centre.

As noted in [Section 4.2.4](#), our MFP concept relies on the construction and completion of a new event centre/arena prior to 2026 for Calgary and region to host the Games. The scope of a prospective 2026 Games, as outlined in [Section 4.1](#), makes clear that two 15,000+ seat arenas are required to accommodate the schedule of events. In addition to the new event centre/arena, we have also assumed (based on discussions with the City of Calgary) the construction of a new Fieldhouse near the University of Calgary, as described in [Section 4.2.8](#). While we have not included it in our MFP concept, another potential development includes a significant expansion by the Calgary Stampede of the BMO Centre. If such an expansion proceeds, reductions in capital cost estimates for the International Broadcast Centre and Media Press Centre (IBC/MPC) will result.

Should the new arena/events complex be developed, it is our understanding that the Scotiabank Saddledome would be demolished in due course. Discussion with the Calgary Stampede on the timing of such demolition has indicated a willingness to keep the Saddledome until after a potential 2026 OPWG. As noted, two major arenas are required to host a potential 2026 OPWG. This offers a unique intersection in time when two large arena venues the size of the Saddledome will exist in Calgary and be able to service the venue capacity requirement for two 15,000+ seat venues for a potential 2026 OPWG.

In summary, now is the time to evaluate an Olympic bid for a new generation to:

- 1** Renew and revitalize aging but valuable 1988 Olympic venues.
- 2** Leverage and encourage the plans of others (including the City of Calgary) to the extent they support bidding for and hosting a prospective 2026 OPWG.
- 3** Capture the intersection in time when Calgary may have two major event centres/arenas required to host a modern day Winter Olympics.
- 4** Maintain Calgary's position as a major sport city and beacon for winter sports participation and excellence in Canada.



1.4 SUMMARY OF FINDINGS

As shown in figure 1.4 below, our estimates show a \$2,410 million net funding requirement for the games. Based on dialogue with government officials, as described later in this section, we anticipate potential federal government funding of \$1,205 million. This leaves an equivalent \$1,205 million to be funded by other levels of government or sources not yet identified.

Our exploration has also included two expert economic assessments documented in [Section 8](#). The highlights of those assessments are:

- Estimated increase to GDP of \$2.21 to \$2.66 billion over the span of bidding for and OCOG operations;
- Estimated increase to labour income of \$1.60 to \$1.91 billion;
- Estimated incremental employment of 24,000 to 27,000 total person-years spread over the eight years of bidding and hosting; and
- Tax revenues to all levels of government of \$515 million.

These estimates of economic impacts from Deloitte LLP and the Conference Board of Canada include only direct and indirect impacts and do not include induced impacts or tourism impacts during or after the Games. In other words, the economic impact assessments are conservative.

As well as the academic calculations of the likely increase to GDP, there are also significant cash inflows to the Calgary and Alberta economies that are only available if the Games are pursued and undertaken:

- ▀ \$1,205 million in federal government funding
- ▀ \$700 million in net IOC contributions
- ▀ \$820 million in sponsorship
- ▀ \$320 million in event ticketing revenue
- ▀ \$350 million in merchandising, licensing and related revenue

In other words, pursuing and hosting the 2026 OPWG would inject nearly \$3.4 billion into the Calgary and Bow Valley region economy, based on our estimates, then would not otherwise be available.

This section summarizes the high-level findings of the work we undertook as part of our bid exploration. The balance of the report provides details on the work which we have undertaken – work that we rely on to ultimately support our recommendations to City Council in respect of the feasibility of hosting and the prudence of bidding for the 2026 Olympic and Paralympic Winter Games.

Figure 1.4 Summary of Total Costs:

Estimated Costs		less	Estimated Revenues	
Category	CS (millions 2017)		Category	CS (millions 2017)
Games Operating Costs	2,615		Net IOC Contribution	700
Facilities	450		Domestic Sponsorship	820
Accommodations	460		Ticketing	320
Security	610		Other Revenues	350
Required Gov. Expense	300		Ttl Operating Revenues	2,190
Endowments	135			
Total Games Costs	4,570		Bid Sponsorship	10
			Total Revenues	2,200
Bid	40			
Total Olympic Costs	4,610			
			Equals	
			Net Funding Required	2,410

*Numbers are rounded to the nearest \$5 million

References for the numbers in the figure above are as follows:

Games Operating Costs

Figure 6.8: Summary of Games Operating Costs (pg. 216) shows estimated operating costs of \$2,380 million, plus a Figure 1.4-a contingency amount of \$235 million for a total a total games operating cost estimate of \$2,615 million.

Facilities (Sport and Media Venues)

Figure 5.3: Sports and Media Venues – Recommended Investments (pg. 187) shows estimated costs of \$392 million. Figure 1.4 We have added a contingency amount of \$60 million, resulting in an overall estimate for sport and media venues of \$450 million in rounded numbers.

Accommodations (Villages and Accommodations)

Figure 5.5: Villages and Accommodations – Recommended Investments (page 190) shows a total Olympic capital budget estimate of \$161 million. This amount represents the net contribution required from Olympic funding after the estimates of government- funded programs such as Attainable Homes Calgary, Calgary Housing Company, Community Housing, Seniors' Lodge Program, Canada-Alberta Social Housing, and developer and mortgage-financed amounts are subtracted from total costs of \$1,156 million. Notably the amounts shown in Figure 5.5 do not include costs to relocate the Victoria Park Transit Centre, per the CMLC. The cost to relocate the Victoria Park Transit Centre is \$238 million. In addition to the amounts of \$161 million and \$238 million, we have included a contingency amount of \$60 million for a total accommodations cost of \$459 million or \$460 million when rounded to the nearest \$5 million.

Security Costs

Figure 7.1: Security Costs by Year (pg. 241) shows estimated security costs of approximately \$510 million plus a contingency of approximately \$100 million for total estimated costs of \$610 million.

Required Government Expenses

Required government expenses represent our estimate of costs that will be incurred for necessary services from governments to host a 2026 OPWG. Such services include Canadian Border Services, Immigration and Naturalization, Health Canada, and Canada Revenue Agency. These services are required amongst other things to ensure that OCOG

commitments under the host city contract and operational requirements are met. Our estimate of these costs has been estimated using similar processes as those outlined for Games Operating Costs in [Sections 6.1](#) and [6.2](#).

Endowments

One of the most impactful and long-lasting legacies that the 1988 Games brought to Calgary was the creation of an endowment fund. Organizers of the 1988 Games had the foresight to set aside funds as a means of supporting the ongoing viability of Olympic venues. All of the 1988 Olympic facilities are in operation today and, as noted elsewhere in this report, these facilities have allowed Calgary to become home to 10 National Sport Organizations. Not only are they the homes to these organizations, but the world class facilities have also allowed for over two thirds of the Canadian Olympic athletes that competed in the past four Olympic Games to train at Calgary's various facilities, making it a hub for high performance athletes.

Endowments are required to ensure continued operations of a facility. There are two streams of funding that define how an endowment fund is distributed:

- Ongoing maintenance (operations)
- Capital and athlete/coach development (programming)

The endowment from the 1988 Games was enough to cover operations up until 2017 without taxpayer money being allocated; however, those facilities are nearing the end of their life cycle and, if not dealt with soon, will require significant funding to uphold their World Class status. The age of the current facilities, ongoing maintenance, and upgrades have caused the endowment to drop. In order for these facilities to remain operational for another 25+ years, a renewed endowment fund will be needed.

Currently, WinSport is responsible for overseeing and distributing the 1988 Games legacy endowment, but if a 2026 Games were to proceed, and a new endowment fund is created, CBEC recommends that a designated governing body is established (possibly including current WinSport members) to govern how the funds are allocated. The endowment would need to include current recipients, such as WinSport/COP, the Olympic Oval and Canmore Nordic Centre, as well as facilities used in a potential 2026 Games, such as the prospective Foothills Fieldhouse.

CBEC has estimated an amount of \$135 million for capital legacy endowments, \$60 million for sport facilities, and \$75 million for sport programming.

Bid

Details on CBEC's forecast for a bid budget are shown in Section 12 (pp. 332-360).

Operational Revenue

[Section 6.3.2](#) (pp. 224-228) details the build-up of our estimates of operational revenue for a prospective 2026 OPWG.

Bid Sponsorship

Details on how a bid will be funded including potential bid sponsorship and support are included in [Section 12.1.2](#) (pp.336-339).

Net Funding Requirement

This amount is the estimated Olympic costs less the estimated Olympic revenues. This amount is estimated at \$2,410 million.

The net funding requirement is the cost that governments would otherwise be required to support should a bid proceed and that bid ultimately be successful. As outlined in [Section 6.1](#) (pg.200) the federal government has an established approach for handling funding requests for International Major Multi-Sport Games. We have had preliminary discussions with the federal government regarding the level of support available for a prospective 2026 OPWG. Federal officials have advised that funding for an event such as the 2026 OPWG would fall under existing policies and practices. The federal government's policy is to host two Major Multi-Sport Games every 10 years. Funding available is the lesser of 35% of the total Games-related costs or 50% of the government funding of Games-related costs.

In the case of our estimates:

- Total Olympic costs = \$4,610 million, 35% which is approximately \$1,615 million;
- Net Funding Required = \$2,410 million, 50% of which is approximately \$1,205 million

Assuming strict application of the policy, based on our estimates, \$1,205 million of federal funding may be available to support a 2026 OPWG. Note that federal officials did advise that federal cabinet approval of a Major Multi-Sport Games is required prior to confirming a funding commitment.



SECTION 2. **PUBLIC ENGAGEMENT & COMMUNITY IMPACT**

2.0

WHAT WE'VE HEARD

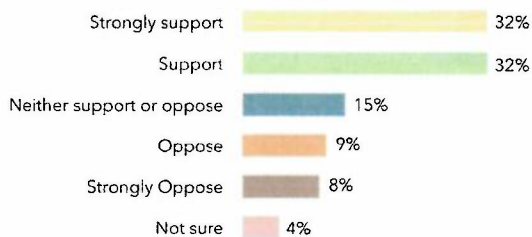
Research conducted by CBEC shows that a majority of respondents are in favour of moving forward with a bid for the 2026 Olympic and Paralympic Winter Games (OPWG), but the support is conditional on a bid and final hosting plan being Calgary- focused and economically viable. Public support would likely slide if either of those two conditions are not met by a prospective bid committee.

Overall, a broad coalition of support exists from residents of Calgary and the Bow River Corridor as well as from key stakeholders from community organizations aligning to the Triple Bottom Line policy and from national sport organizations (as described in [Section 3](#)).

Figure 2.1 Public opinion about a potential Calgary OPWG

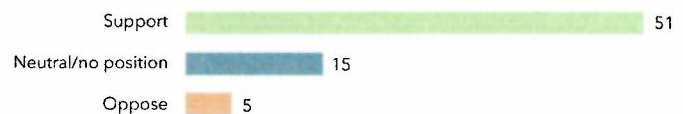
To what extent do you oppose or support the Calgary region bidding for the 2026 Olympic and Paralympic Winter Games?

Responses from quantitative survey



Would your organization support or oppose a bid moving forward?

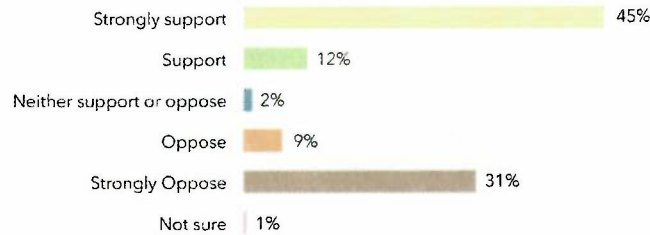
Responses from 71 individual direct interviews



Source
STONE-OLAFSON

Do you oppose or support Calgary bidding for the 2026 Olympic and Paralympic Winter Games?

Responses from guided feedback tool



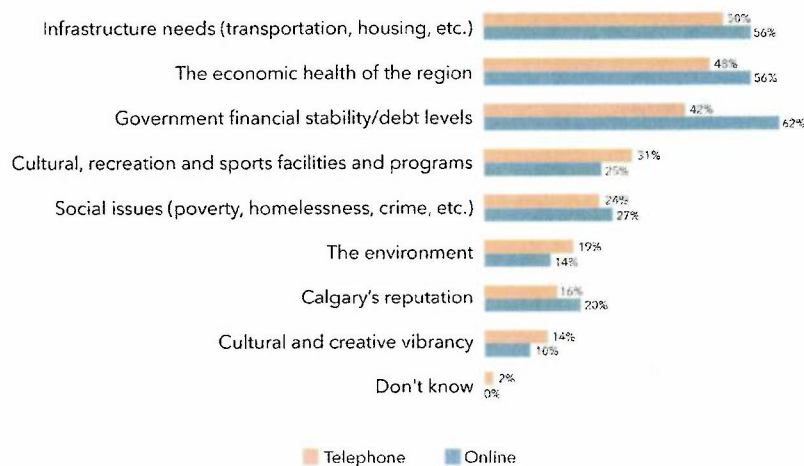
Source
STONE-OLAFSON

A number of citizens provided neutral or conditional answers as they felt they lacked the necessary facts to make an informed choice.

Prominent matters of interest and concern that arose throughout the research included new or renewed infrastructure, the economic health of the Calgary region, and the impact that hosting a Games may have on government finances.

Figure 2.2 Key considerations

When it comes to the possibility of bidding for or hosting the 2026 Games, which of the following are most important to you?



Source
STONE-OLAFSON

2.1

SCOPE OF ANALYSIS

In the course of our work, CBEC's public engagement and community impact team was responsible for measuring current public opinion about bidding for and hosting the 2026 OPWG; actively soliciting the thoughts, opinions and concerns of the general public and community organizations; and assessing the impact of a Games bid and potential hosting on the broader community.

We gathered quantitative and qualitative feedback from both Calgary and area citizens, community organizations and the articulated strategies of these organizations. These organizations provide subject matter expertise that align to the pillars of the City's Triple Bottom Line Policy (Economic, Social/Cultural, and Environmental). The research was coordinated with CBEC's stakeholder and government relations team to gather feedback from municipal governments of communities in the Bow Valley Corridor, sport organizations and Indigenous Peoples, including all Treaty 7 Nations, as well as local Métis groups.

Choosing community organizations to participate in the process was a challenging endeavor as all voices offer valuable information and feedback. However, given the finite timeframe of the project, it was necessary to develop a rubric to determine which organizations would be approached for comment. As such, the following principles were applied:

- The organization's mandate is aligned with one or more of the pillars of the Triple Bottom Line.
- The organization is a sector-serving organization; it works closely with other organizations and community members in its sector.
- The organization would be indirectly involved in a prospective bid for, or potentially hosting, the 2026 Olympic Winter and Paralympic Winter Games.



2.2 REQUIREMENTS AND PROCESS

Our work consisted of three distinct segments, each of which produced very different information to provide both statistically valid quantitative data and supporting qualitative narrative. To assist in this work, CBEC selected Calgary-based research consulting firm Stone-Olafson.

REPRESENTATIVE GENERAL POPULATION SURVEY OF CALGARY AND AREA

A quantitative survey was deployed on March 6, 2017. This scientifically valid research initiative used a representative population sample from Calgary and communities within the Bow Valley Corridor (Banff, Canmore and Cochrane). The survey tested respondents' sentiment to a prospective bid through the lens of the City's Triple Bottom Line Policy by examining economic, social/cultural and environmental motivations.

The goal of this tool was to move beyond a simple yes or no answer as to whether Calgarians support an Olympic bid. More importantly, the focus was to understand what factors would play a role in Calgarians supporting or objecting to an Olympic bid and potentially hosting the OPWG.

The survey was conducted using a dual methodology with both online and telephone sampling. After data cleaning, a total of 1,949 surveys were completed: 789 online (primarily Calgary census metropolitan area residents) and 1,160 telephone (Calgary and Bow Valley residents). The final data set was weighted by age, gender and region to provide a representative sample according to most available census data.

CBEC used AskingCanadians, an online data collection firm, to build its representative online panel of Calgary residents. The AskingCanadians online research community, and its French counterpart Qu'en pensez vous, includes a panel of more than 650,000 demographically representative and profiled Canadians who have opted-in to participate in online surveys.

Due to non-random sampling (with the inclusion of an online sample source), a traditional margin of error cannot be calculated. However, common practice permits an approximate margin of error and a typical sample of this size produces a margin of error of +/- 2.2 per cent, 19 times out of 20. The confidence intervals are larger among different subsets of the population.

Like all public opinion surveys, this poll is a snapshot in time. Public opinion today may be different than it was in March and April 2017 when the survey was conducted. The full survey can be examined in *Appendix 2A: Public Engagement Survey*. The data tables for the quantitative survey is provided in *Appendix 2G: Quantitative Survey Data*.

IN-DEPTH INTERVIEWS (IDIS)

The interview portion of the research enabled a deeper dive with subject matter experts in organizations that align with one of the pillars of the Triple Bottom Line. These interviews focused on the perceived impact to the community from an economic, social/cultural or environmental perspective. Organizations were chosen through the process described above. The IDIs are a qualitative research tool, enabling CBEC to explore perceived positive and negative impacts that a prospective bid could have on the city that would be difficult to isolate with a quantitative tool.

The IDIs also queried respondents' vision of Calgary for the future to assess if bidding on and potentially hosting the 2026 OPWG would advance that vision or push us further away. Testing the vision of sector-serving organizations has helped drive our understanding of whether an Olympic and Paralympic Winter Games fits into Calgary's vision for itself.

Stone-Olafson developed a discussion guide for the interviews to ensure consistency in gathering information across the entire interview base. All interviewers were experienced research professionals with established skills in this methodology.

The stakeholder and government relations team led the IDIs with directly impacted stakeholder groups and Indigenous Peoples. In some cases, including some Indigenous Peoples' engagements, Stone-Olafson acted as a facilitator.

The IDI discussion guide is included in *Appendix 2B: Stakeholder Engagement Discussion Guide*. For a list of community organizations identified for IDIs, see *Appendix 2C: Sector-Serving Agencies and Impacted Communities*.

GUIDED FEEDBACK TOOL

To provide all Calgarians and residents of the Bow Valley Corridor with an opportunity to offer their opinions, CBEC launched an online questionnaire on February 22, 2017 at www.shouldcalgarybid.com. The tool presented participants with both potential positive and negative impacts associated with hosting an Olympic Games drawn from academic literature. It then asked the participant if they would support or oppose an Olympic bid with that information in mind and provided an opportunity for open feedback.

The tool was designed to encourage reasonable depth of thought on the subject and to elicit detailed comments. The narratives were written to provide equal weight to both negative and positive sides of the discussion in hopes that the respondent would take both into consideration. The narrative format was also devised to help encourage conversation among citizens.

The guided feedback tool was an open research tool that enabled any members of the public to participate. We launched a six-week paid advertising campaign to drive Calgarians and Bow Valley residents to the site to share their opinions and learn more about the process. Information from the tool has provided qualitative data that helped identify themes as well as reinforce findings from the other two research streams.

The guided feedback tool script is included in *Appendix 2D: Guided Feedback Tool*.

2.3

RESULTS AND PUBLIC PERSPECTIVE

RESEARCH PARAMETERS

a. Timeframe and participation

CBEC deployed the research model in the field from February to April 2017. The first tool to launch was the targeted in-depth interviews which began February 14, 2017 and concluded April 19, 2017. CBEC interviewed 71 sector-serving organizations represented by 94 individuals to collect their perspectives – informed by their specific expertise – on potential effects that a bid for and/or hosting the 2026 OPWG could have on their sector and on Calgary in general.

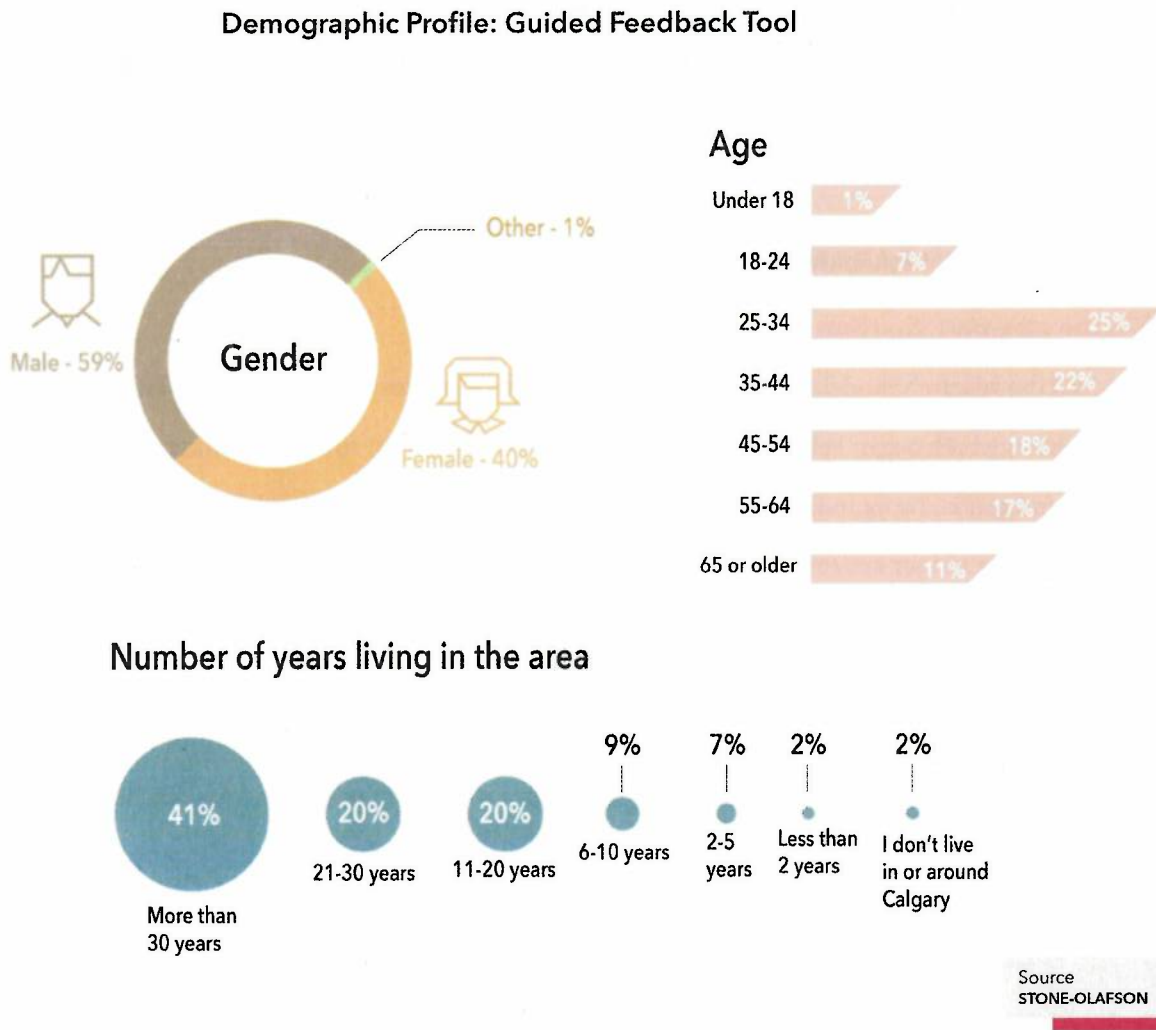
The open guided feedback tool launched on February 22, 2017. Data analysis provided in this report is limited to responses collected prior to April 11, 2017. However, the tool remains available to collect input from Calgarians and, if needed, report any shift in public opinion. As of April 11, 2017, a total of 14,768 responses had been collected from Calgarians and residents of the Bow Valley Corridor that are included as part of this report. Approximately two per cent of total responses were identified as originating from beyond the immediate area.

The representative quantitative survey launched on March 6, 2017 and was completed on April 16, 2017. We set a target sample size of 2,000 respondents, with 1,200 to be conducted via telephone and 800 to be conducted online with a balanced sample of Calgarians. For the phone survey, 452 respondents were residents of Calgary, 201 from Banff, 303 from Canmore and 222 from Cochrane. Phone survey respondents were randomly selected and included both landline and cellular phones. The total sample size was 1,949 after data cleaning, such as local number portability (respondents with Alberta area codes who were not Alberta residents) and “straight-liners” (respondents who speed through surveys giving the same answer.)

b. Demographics

The demographic profile of the guided feedback tool respondents is shown in Figure 2.3.

Figure 2.3 Demographic profile: guided feedback tool

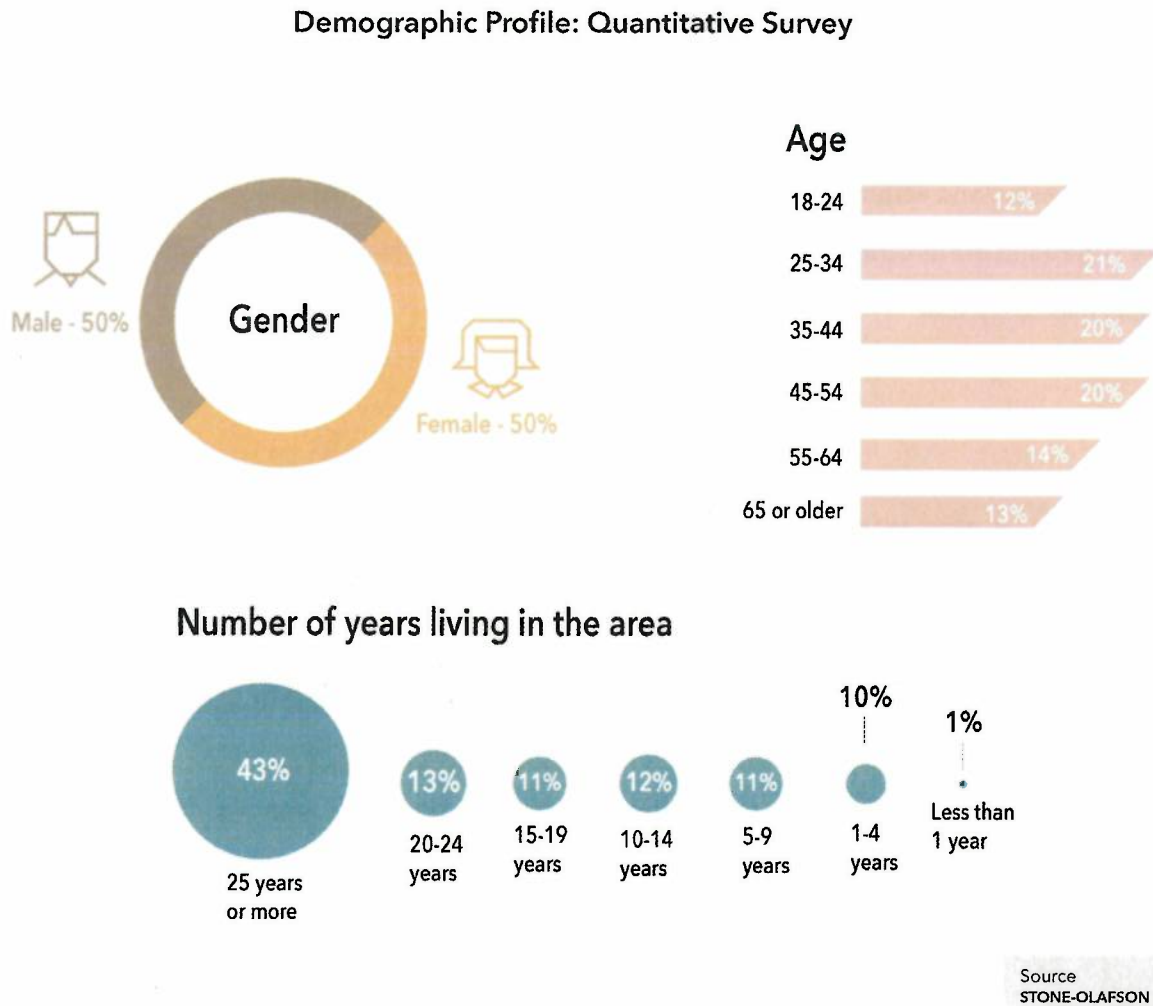


A list of the organizations engaged for the in-depth interviews can be found in *Appendix 2C: Sector-Serving Agencies and Impacted Communities*.

Figure 2.4 describes the combined phone and online demographics of the quantitative survey respondents.

Respondents of the quantitative survey are representative of the population of the Calgary area in both gender and age.

Figure 2.4 Demographic profile: quantitative survey



c. Established bias

It should be noted that phone surveys typically carry a positive bias, as some respondents are uncomfortable expressing negative viewpoints to a live interviewer. This may lead to some discrepancies between phone and online results. As the quantitative survey used both phone and online mediums, the research is recorded both separately and together in the data results in *Appendix 2G: Quantitative Survey Data*. In the analysis below, results are cumulative and include both components, unless otherwise noted.

WHAT WE HEARD: OVERARCHING THEMES


CBEC's research provided a broad array of information aligning with the three themes of the City's Triple Bottom Line Policy (economy, social/cultural and environment) and the additional theme of legacy. While each line of inquiry provided its own distinct findings, some themes became evident throughout the research.

The themes listed below and within each public opinion section encapsulate scientifically valid results from the quantitative survey and the in-depth interviews with community organizations, along with supporting observations from the guided feedback tool.

A MAJORITY OF CITIZENS CONDITIONALLY SUPPORT A CALGARY BID FOR THE 2026 OLYMPIC AND PARALYMPIC WINTER GAMES.

Overall, 65 per cent of citizens polled in the quantitative survey and 57 per cent of respondents through the guided feedback tool support Calgary submitting a bid for the 2026 OPWG. This reflects overall positive responses to potential issues raised throughout the research model and an overall sense of confidence that Calgary could be a successful host city.

It should be noted, however, that some Calgary and area residents (19 per cent of those polled in the quantitative survey) remain neutral on the subject or feel they lack sufficient information to form an opinion. As more information is revealed through the bid exploration process and reporting, a sizeable shift in support may occur as those currently undecided find their voice.



ECONOMIC IMPACTS, INFRASTRUCTURE AND PUBLIC DEBT ARE THE MOST COMMON PUBLIC CONCERNS.

Citizens see the potential for an economically positive Games for the Calgary area and see an opportunity to add meaningful infrastructure to the city for both sport and social uses. However, they are concerned about the larger economic picture and the potential for the high cost of the Games to be passed on to the taxpayer.



PUBLIC SUPPORT IS RELIANT ON COST CONTROLS AND FUNDING MODEL.

The cost of bidding on and potentially hosting the Games is the single biggest concern of Calgarians and the primary basis for opposition. The public wants to see not only the projected cost of the Games but a comprehensive economic picture, as well details regarding how the cost would be distributed among the various funding partners. If the economic picture is revealed to be less than favourable, public support is likely to drop sharply.



THERE IS A HIGH NEED FOR TRANSPARENCY, BOTH NOW AND MOVING FORWARD.

Throughout our research, we found a number of responses that took a neutral stance on questions due to feeling there was insufficient information to answer the question. This perceived dearth of information also shaped a number of open-ended concerns, especially regarding the economics of the Games and potential economic impact. A commitment to open and transparent communication, especially on economic issues, from beginning to end will be required if the process is to move forward.

AGE AND TENURE OF RESIDENCY DIVIDE RESIDENTS ON ISSUES OF CONCERN AND LEVELS OF OPTIMISM.

Younger residents and those newer to Calgary are generally more supportive of an Olympic and Paralympic Winter Games bid and the potential impacts associated with hosting a Games. They have a more optimistic outlook when it comes to perceived positive opportunities and a new legacy emerging from 2026. Older residents tend to be more pessimistic and, while they have fond memories of the 1988 Winter Games, are doubtful the same magic can be recaptured. Older residents are also more skeptical about the economics of hosting another Olympic Winter Games.

MOST CALGARY RESIDENTS WOULD BE PROUD OF A CALGARY BID AND SEE VALUE IN IT, REGARDLESS OF WHETHER IT IS SUCCESSFUL.

A majority (68 per cent) of area residents would be proud if Calgary were to move ahead with a bid on the 2026 OPWG. It would be important to maintain and cultivate this emotional connection if the process were to move forward. Most residents, particularly those represented in the in-depth interviews, also see value in a bid, even if it is unsuccessful. The potential for a bid to provide alignment for the city's social and cultural sectors is enormous and would provide the city with a much stronger vision to follow into the future.

THERE IS A DESIRE TO MAINTAIN AND IMPROVE THE LEGACY VENUES FROM THE 1988 OLYMPICS - EVEN IN THE ABSENCE OF A BID.

Citizens voiced a desire to maintain the '88 legacy and said that facilities such as WinSport and the Olympic Oval should be maintained to an international competition standard. There was also support for expanding the number of publicly accessible facilities in Calgary.



**EVEN AN UNSUCCESSFUL BID OFFERS
AN OPPORTUNITY TO BUILD ALIGNMENT.**

There are several important community-led strategies in place that provide direction to a diverse array of initiatives in Calgary. If a bid proceeds, it will need to focus on community and work towards a formal expression of what Calgary wants to be and offer in the future, building alignment among strategies as well as among community organizations and agencies. This alignment has the potential to streamline meaningful action for the community, provide clarity around community priorities, and develop a more inclusive city overall.



**IN DIFFICULT ECONOMIC TIMES, THERE IS
A CONCERN THAT HOSTING THE GAMES WOULD DIVERT
RESOURCES FROM SOCIAL AND CULTURAL SECTORS.**

There is a concern that if Calgary were to be awarded the 2026 Winter Games, resources would be diverted from social and cultural organizations and programs that are highly reliant on government funding and corporate sponsorship. Even a relatively short-term diversion of funds from such organizations could cause irreparable long-term damage.



**ANY NEW INFRASTRUCTURE WOULD NEED TO
SERVE THE COMMUNITY AND BE ACCESSIBLE TO ALL.**

Citizens see a need for all infrastructure developed for the Games to serve community needs post-Games, whether for sports and recreation or to be repurposed to meet social and/or cultural needs. Most see this as manageable and expect that any infrastructure developed will incorporate a long-term plan for its use.

PUBLIC OPINION: ECONOMIC IMPACT

Since the Calgary Bid Exploration Committee was announced, many Calgarians have echoed one of the key questions that make up CBEC's mandate: "Would a 2026 Olympic and Paralympic Winter Games be financially feasible?" As the conversation has evolved, Calgarians have continued to consider the economic prospects of bidding on and potentially hosting the 2026 Games. During CBEC's research on public perspectives, a number of key themes emerged on the topic of economic feasibility and potential costs. The details of these themes as well as the degree of public support is discussed in greater detail below.

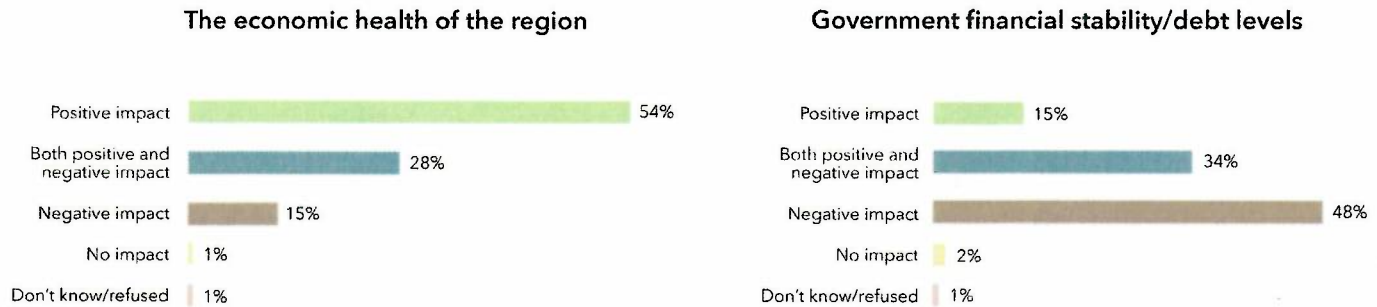
THERE WOULD BE A REGIONAL ECONOMIC BENEFIT ASSOCIATED WITH HOSTING THE GAMES, BUT GOVERNMENT FINANCES COULD BE NEGATIVELY AFFECTED.

Fifty-four per cent of respondents in CBEC's quantitative study believed that a potential 2026 Games would yield a positive economic effect while 15 per cent believed it would create a negative economic effect. Results indicate that citizens are relatively confident that the Games would have a positive economic impact on the region, including increased tourism, job creation and diversification of the local economy. Two out of three respondents believed that a 2026 OPWG would be net positive economically.

The current lack of detailed financial figures available to the public at the time of CBEC's engagement appear to drive much of the public's concern. Almost half (48 per cent) of all open-ended comments on the guided feedback tool raised questions about the high cost of hosting the Games. There is a distinct concern that although the Games may provide a boost to the local economy, taxpayers will still be negatively affected. As shown in Figure 2.5, almost half (48 per cent) of respondents felt hosting the 2026 Games would cause a negative effect on the financial stability of all levels of government. Some respondents suggested that the current economic climate in Alberta makes the Games a greater financial risk than they might be in more prosperous times.

Note: unless otherwise mentioned, all graphs reflect data from the scientific quantitative survey.

Figure 2.5 Economic impact



Source
STONE-OLAFSON

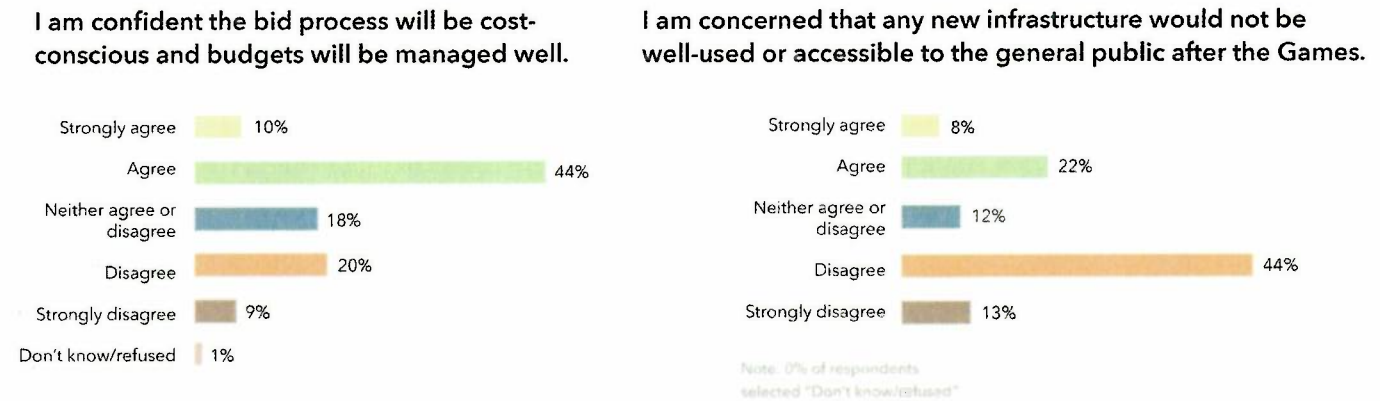
ANY PROSPECTIVE BID ECONOMICS WOULD NEED TO BE WELL-MANAGED, REALISTIC AND TRANSPARENT.

Fifty-four per cent of respondents in the quantitative survey believed that a prospective bid process would be cost-conscious and well-managed. Both open-ended responses and interviews with community organizations articulated a belief that the City of Calgary is a competent money manager for large-scale events. Some respondents referenced the financial success of the 1988 Winter Games as evidence that Calgary would be up to the task. Responses in several interviews indicated that Calgarians have a strong degree of confidence in the city being able to run an operationally excellent – yet fiscally responsible – Games.

Research results suggest that capital costs are a key concern. While many in their comments understood that capital costs associated with a prospective OPWG could represent worthwhile investment (e.g., infrastructure development repurposed to meet post-Games needs or development that would meet a need prior to the Games), “white elephant” infrastructure built solely for the Olympics and not representing a lasting value to the community remains a concern. Although a majority of survey respondents (57 per cent) believed that new infrastructure would be well-used and accessible following the Games, 30 per cent did not. This concern was also raised in several interviews with community organizations.

There is a strong indication that the level of public support moving forward could be tied to overall hosting costs, with support for the Games falling if costs escalate.

Figure 2.6 Bid costs and legacy infrastructure



Source
STONE-OLAFSON

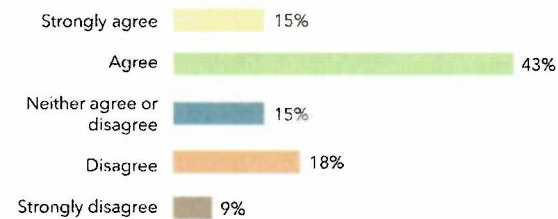
THE ECONOMIC COST OF SUBMITTING A BID IS WORTHWHILE, EVEN IF UNSUCCESSFUL.

The Olympic bid process is a complex and expensive endeavor with no guarantee of success. This represents a sizeable financial risk to any candidate city. Respondents in both the quantitative study (58 per cent) and in many of the community organization interviews expressed a belief that an OPWG bid would be worthwhile financial venture regardless of the outcome.

Survey respondents also suggested the bid could offer a more concrete and practical benefit by creating an inventory of prospective infrastructure projects along with an assessment of the community support they garner.

Figure 2.7 Bid cost regardless of outcome

I think that the cost of submitting a bid for the 2026 Games is a worthwhile investment even if the Calgary region does not win the bid.



Note: 0% of respondents selected "Don't know/refused"

Source
STONE-OLAFSON

THERE ARE POTENTIAL ECONOMIC IMPACTS BEYOND THE DIRECT DOLLARS AND CENTS.

Beyond the direct revenues generated by a prospective Games, the research showed the public sees other potential economic advantages in moving forward with a bid for the 2026 OPWG.

Seventy-one per cent of respondents of the quantitative survey felt that even an unsuccessful bid would help promote Calgary and attract new business activity. This was echoed in the interview section of the research where it was noted that growing the profile of Calgary could attract not only new businesses, but new talent and new investment into the city.

Figure 2.8 Value in a prospective bid

Regardless if they are successful or not, bids like this are good ways to promote Calgary and attract business activity.



Note: 0% of respondents selected "Don't know/refused"

Source
STONE-OLAFSON

There was also a feeling that an Olympic bid could represent a “shot in the arm” for Calgary’s economy. An Olympic bid could potentially reflect a boost in the confidence in the city and its prospects, as was the case when Calgary bid for the 1988 Winter Games. This is reflected in all sectors surveyed.

The added economic activity surrounding a successful bid was also mentioned frequently in the in-depth interviews. Respondents suggested that preparing for and hosting the Games would produce associated employment opportunities across a wide range of sectors. Respondents also held a general belief that events like the OPWG can provide opportunities to build needed infrastructure for economic gain as well as social improvements such as affordable housing, improved transportation networks and community gathering places.



PUBLIC OPINION: CULTURE AND SPORT

The Games have always had a strong cultural element. As one of the few true global events, the Olympics and Paralympics are an exhibition of culture as well as sport. As a potential host city, Calgary would be expected to deliver a robust cultural program both prior to and during the Games. This cultural program would reflect our identity and cultural strength to the world.

THERE WOULD BE A POSITIVE CULTURAL BENEFIT TO HOSTING THE 2026 OLYMPIC AND PARALYMPIC WINTER GAMES.

Note: unless otherwise mentioned, all graphs reflect data from the scientific quantitative survey.

Nine out of 10 citizens responding to our survey felt there would be a positive cultural impact associated with hosting the 2026 Games. Seventy-one per cent of respondents agreed that the 2026 Games would be an opportunity to showcase different cultural groups and provide skills development and employment opportunities to cultural organizations and workers.

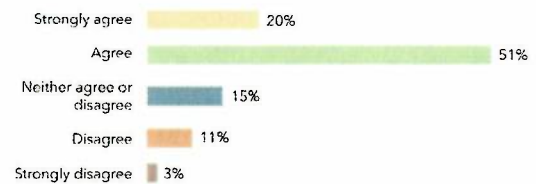
Figure 2.9 Cultural impacts

Cultural, recreation and sports facilities and programs are important considerations.



Note: 0% of respondents selected "Don't know/refused"

I believe that hosting the 2026 Games would provide an important opportunity to showcase cultural groups and provides these groups with skill development and employment opportunities.



Note: 0% of respondents selected "Don't know/refused"

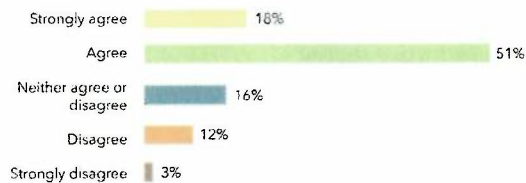
Source
STONE-OLAFSON

CALGARY'S STATUS AS A WINTER SPORT LEADER IS IMPORTANT TO CALGARIANS.

The legacy of the 1988 Winter Olympics had a transformative cultural effect on the Calgary region and developed a hub of winter sport facilities, leadership and community participation. According to CBEC's research, 69 per cent of citizens feel that steps should be taken to maintain Calgary's role as a winter sport leader and 78 per cent feel that current facilities require investment to bring them up to international standards, even without a prospective Olympic bid.

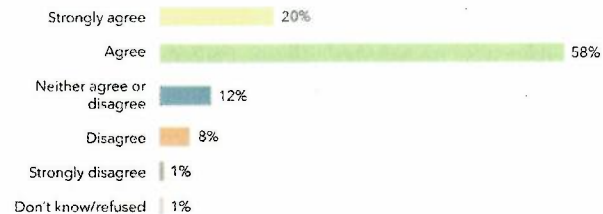
Figure 2.10 Winter sport infrastructure

It's important that steps are taken to maintain Calgary's position as a leader in winter sport.



Note: 5% of respondents selected "Don't know/refused"

Regardless of whether a bid goes forward, investment is needed to bring existing facilities up-to-date and usable for future international events.



Source
STONE-OLAFSON

THERE IS CULTURAL VALUE IN AN OLYMPIC BID THROUGH POTENTIAL FOR ALIGNMENT.

As mentioned above, CBEC's public opinion research suggests there is a sense that an Olympic bid would bring together the City's cultural plan, policies and organizations to present a more cohesive vision and roadmap for cultural advancement in the city. Respondents expressed a strong belief that an Olympic bid would present an opportunity to create a more unified picture of what Calgary aspires to become. Even if a bid were to fail, Calgary could benefit by having a catalyst and blueprint for future action.

In interviews, culture representatives noted the potential to evolve Calgary's cultural identity beyond what it is today. Showcasing Calgary's arts and cultural assets could facilitate a repositioning of Calgary's reputation as a dynamic, diverse and culturally rich city rather than solely an "oil and gas town."

PUBLIC OPINION: SOCIAL

Our task has been to explore how a prospective OPWG bid would – or would not – fit into Calgary's vision for itself. In approaching the idea of a cost/benefit analysis of the Games, CBEC has examined the totality of what the Games would mean for Calgary as a city, a region and a people. To be feasible and prudent, it is critical the Games offer

positive social impacts for the community as well as careful mitigation of potential negative social impacts. These social impacts must be considered in many areas of social concern, including accessible housing, employment, public health and stable funding for community-focused organizations.

Note: unless otherwise mentioned, all graphs reflect data from the scientific quantitative survey.



HOSTING AN OLYMPIC AND PARALYMPIC GAMES COULD HOLD VALUE IN CREATING SOCIAL INFRASTRUCTURE.

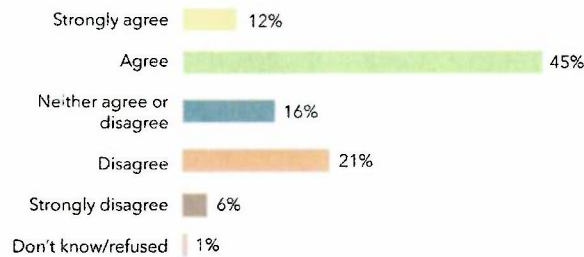
Fifty-seven per cent of respondents to the quantitative survey agreed or strongly agreed that hosting the 2026 Olympic and Paralympic Winter Games could offer an opportunity to develop social infrastructure. Through several open-ended responses and community organization interviews, responses indicated this is most commonly thought of as the creation of subsidized or affordable housing by repurposing or reassigning athletes' villages after the Games are complete.

New and renewed infrastructure is of great interest to the educational institutions of Calgary. Both Mount Royal University and the University of Calgary benefitted from the 1988 Games through the development of extended student housing used for Games accommodation. Development of new facilities for the Games on campuses offers an opportunity to increase student housing, enhance program space, or even add to academic offerings.

Social infrastructure can extend beyond facilities serving community purpose, as some respondents noted that a 2026 Games could invigorate and renew the spirit of volunteerism in Calgary. Many community organizations point to the 1988 Winter Olympics as a high-water mark for volunteerism in Calgary and feel that a prospective new Games bid could have a similar effect.

Figure 2.11 Social impacts - infrastructure

Potentially hosting the 2026 Games could help address social issues by creating needed social infrastructure (such as affordable housing).



Source
STONE-OLAFSON

IF THE PROCESS MOVES FORWARD TO A BID, THERE MUST BE SPECIALIZED STRATEGIES IN PLACE FOR VULNERABLE AND MARGINALIZED POPULATIONS.

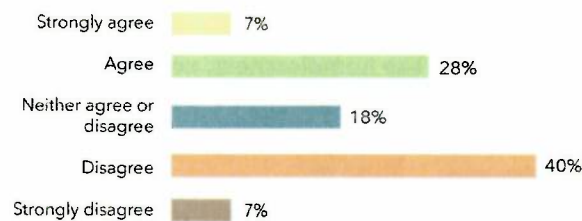
Inclusion of all communities in the Games is crucial. Interviews with social issue- focused community organizations emphasized that any potential Games must benefit all Calgarians and every individual must see personal value in hosting the Games. There also must be opportunities for vulnerable populations to have meaningful participation in a potential Games. Interview respondents noted this may be fulfilled in a variety of ways, including training and employment, community acknowledgement and recognition, or something as simple as having Olympic festivities be socio-economically accessible for all citizens.

In CBEC’s engagement with Treaty 7 and Métis Indigenous Peoples, leaders identified meaningful inclusion as an issue of particular importance. As Nations living in the area and protecting it for over 8,000 years, members of the Treaty 7 First Nations expressed it was important they were acknowledged, not only as part of the social fabric, but also as a key operational partner in both prospective bid and organizing committees.

A concern raised was the potential displacement of the disadvantaged and homeless, with citizens referencing what took place in Vancouver with the reported displacement of residents of the East Hastings neighbourhood and in Rio in the favelas. Thirty-five per cent of respondents in the qualitative survey felt that social programs and services, such as those offered to disadvantaged populations, would suffer from hosting an Olympic and Paralympic Winter Games.

Figure 2.12 Social impacts - programs and services

I worry that programs and services provided to those living in the Calgary region would be disrupted during a potential 2026 Games.



Note: 0% of respondents selected "Don't know/refused"

Source
STONE-OLAFSON

Crucial social services may also be impacted during a prospective 2026 Games. For example, the capacity of the health system is already strained, particularly during the mid-winter cold and flu season. The addition of athletes and visitors requiring acute or emergency care would require comprehensive planning to accommodate the increased demand for health services.

THERE IS A CONCERN THAT MEGA-EVENTS - SUCH AS THE GAMES – CAN DIVERT FUNDING AWAY FROM SOCIAL ORGANIZATIONS.

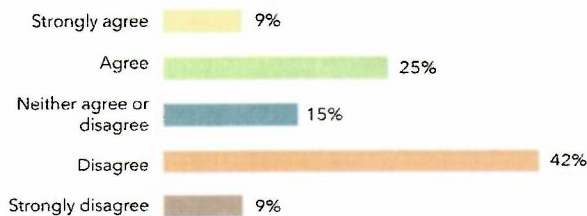
One-third of survey respondents (34 per cent) voiced concern that focusing on a Games bid may result in social issues being neglected. Data from the in-depth interviews also presented a financial implication to this possible neglect.

Several individuals from social issues-focused organizations stated their overall support of an Olympic bid and recognition of the opportunities presented by a bid is conditional on the bid not affecting their funding levels. Social agencies often are pushed to financial limits in providing services. With a percentage of corporate donations potentially moving to support an Olympic bid, this could endanger the provision or continuity of their services.

To mitigate this, a number of community organization representatives suggested a donor and funding strategy that would align with social agencies to ensure that no group would be left without adequate funding.

Figure 2.13 Social impacts – loss of funding

I am worried social issues like homelessness, poverty, crime and others would be neglected by focusing on a Games bid.



Note: 0% of respondents selected 'Don't know/refused'

Source
STONE-OLAFSON

A PROSPECTIVE OLYMPIC AND PARALYMPIC BID REPRESENTS AN OPPORTUNITY FOR ALIGNMENT AMONG SOCIAL AGENCIES.

A key benefit for the social sector would be the opportunity for alignment and potential partnership among different social-serving organizations. A bid could provide a framework to align social agencies and provide new opportunities for cooperation and greater overall efficiency. The potential for alignment of various agencies, organizations, initiatives and plans was a frequently reoccurring theme throughout the research, particularly in the in-depth interview responses.

PUBLIC OPINION: ENVIRONMENT

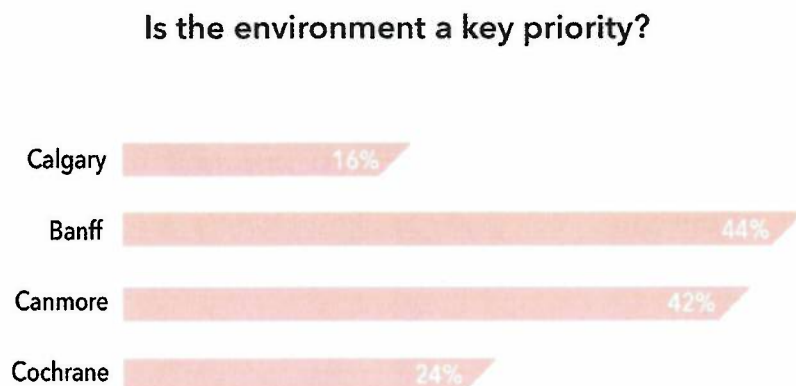
Large-scale events carry unavoidable environmental repercussions due to their scope and the influx of additional people they attract. To mitigate this impact, there is a higher expectation to demonstrate environmental advances and showcase environmentally- friendly best practices beyond offsetting impacts.

Note: unless otherwise mentioned, all graphs reflect data from the scientific quantitative survey.

RESIDENTS OF BANFF AND CANMORE PLACE HIGHER IMPORTANCE ON ENVIRONMENTAL ISSUES THAN CALGARY RESIDENTS.

Through the phone segment of the quantitative survey, 16 per cent of Calgary respondents listed the environment among their top three considerations surrounding a prospective bid and hosting of an OPWG. The same survey delivered to residents of Banff and Canmore yielded environment as a top consideration 44 per cent and 42 per cent of the time, respectively.

Figure 2.14 Environment



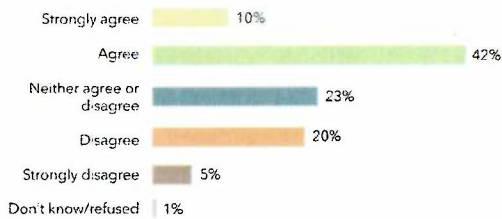
Source
STONE-OLAFSON

WHILE THERE IS CONFIDENCE IN ENVIRONMENTAL REGULATION OF A GAMES, OPPORTUNITIES FOR ENVIRONMENTAL PROGRESS ARE DUBIOUS.

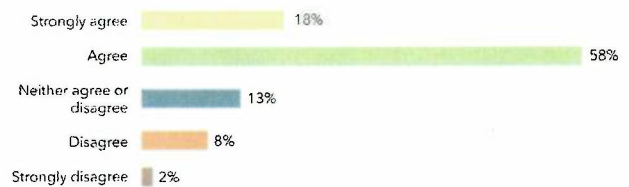
Citizens were confident that appropriate environmental controls would be present for any potential Games (76 per cent). However, while there was a sense that responsible environmental conduct was almost assured, there was substantially less confidence that the Games would represent an opportunity to advance environmental progress (52 per cent). There was similar skepticism that environmental impacts would be treated with the same attention as economic matters; 43 per cent of those polled felt organizers would focus more on business and tourism than long-term environmental impacts.

Figure 2.15 Environmental impacts - opportunities

I believe hosting the 2026 Games would provide the opportunity to take positive steps forward on environmental matters that would not otherwise be pursued.

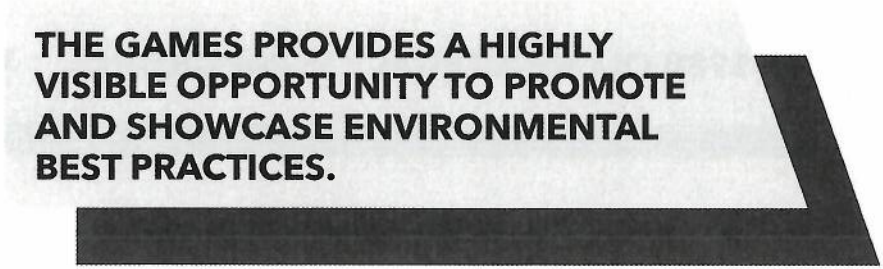


I trust that there would be controls in place to make sure Calgary (and surrounding area) was an environmentally responsible Olympic host city.



Note: 0% of respondents selected "Don't know/refused"

Source
STONE-OLAFSON



**THE GAMES PROVIDES A HIGHLY
VISIBLE OPPORTUNITY TO PROMOTE
AND SHOWCASE ENVIRONMENTAL
BEST PRACTICES.**

Mega-events, like the Olympics, carry with them environmental impacts and are often criticized for the damage they cause. Many see a need for an Olympic bid to set a strong focus on sustainability and believe there is an opportunity to have environmental responsibility play a strong role in the overall vision of the Games.

The idea of a “Green Games” was a prominent theme in interviews conducted with environmental organizations. Keeping environmental considerations such as waste management, water usage and conservation of land and habitats a priority while developing Games venues and operating a Games may be challenging, but would show that a balance between development and conservation is possible.



**THERE IS A DISTINCT CONCERN ABOUT
OVERALL IMPACTS TO THE WILDERNESS,
MOST NOTABLY TO NATIONAL PARKS.**

The potential for new or expanded facilities and an increase in tourist activity (along with the associated impacts) is of concern to environmental organizations. As the impacts associated with events of this size are unavoidable, there is increased emphasis on either avoiding ecologically protected areas altogether or developing comprehensive mitigation plans in consultation with environmental experts.



PUBLIC OPINION: LEGACY

The legacy of the 1988 Winter Games is still evident in Calgary and much beloved. However, as nearly 30 years have passed, many Calgarians do not associate venues such as WinSport and the Olympic Oval or infrastructure like the C-Train or student housing with an Olympic legacy. A new generation of Calgarians see an opportunity for a new legacy of their own.

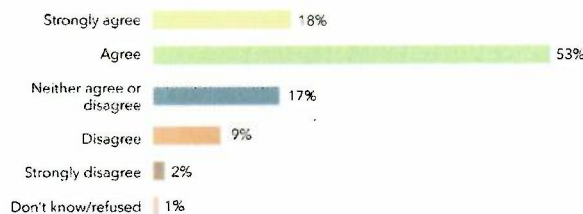
THE 1988 OLYMPIC LEGACY IS IMPORTANT.

Note: unless otherwise mentioned, all graphs reflect data from the scientific quantitative survey.

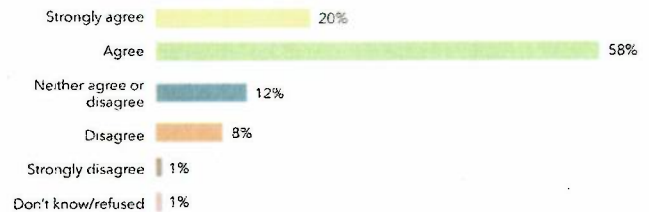
Seventy-two per cent of respondents to the survey feel the 1988 Olympic legacy holds value and requires revitalization. Seventy-nine per cent of those polled wish to see investment in existing 1988 sports infrastructure to bring it back to international standards, regardless of whether a bid moves forward.

Figure 2.16 Legacy impacts - value

Calgary's Olympic legacy from 1988 is important and goes beyond sport but needs revitalization.



Regardless of whether a bid goes forward, investment is needed to bring existing facilities up-to-date and usable for future international events.



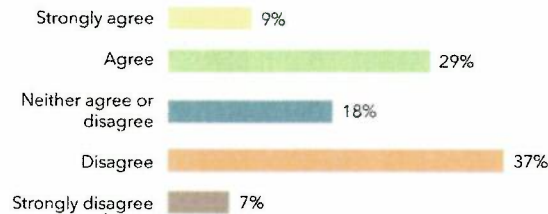
Source
STONE-OLAFSON

THERE IS SOME SKEPTICISM SURROUNDING SUPPORTING NEW LEGACY INFRASTRUCTURE OVER THE LONG TERM.

While a majority of those surveyed support the continuation of the 1988 legacy, there is concern about the ongoing support of new legacy assets that may be associated with a prospective 2026 Games. Thirty-nine per cent of respondents expressed concern with the long-term maintenance of facilities and venues post-Games, possibly reflecting failed “White Elephant” infrastructure from past Games where Olympic facilities may fall into disrepair due to unaffordable operating costs and low post-Games utilization.

Figure 2.17 Legacy impacts - costs

Maintaining facilities and venues after the Games is just one more cost that Calgary shouldn't have to worry about.



Note: 0% of respondents selected "Don't know/refused"

Source
STONE-OLAFSON

A 2026 OLYMPIC LEGACY CAN BE LESS ABOUT BRICKS AND MORTAR FACILITIES AND MORE ABOUT ACTION AND CHANGE.

In discussing what a prospective 2026 Games legacy could look like, three prominent ideas emerged:

1. Calgary's evolution

Coined by one respondent as "Calgary's Next Act," many see a potential legacy as the beginning of a new phase for the city, one less focused on energy and business and more focused on how we do things. How a prospective 2026 Games could be operated would set the stage for Calgary's next chapter.

“*The closing ceremonies of the Games would be the opening ceremonies of Calgary's future.*”

- Interview participant

2. Inclusion

The notion of inclusion was mentioned throughout interviews as a potential intangible legacy that would have deep impact on the community. Inclusion would be reflected in every aspect of Games legacy, from multi-use and economically accessible facilities to improving and promoting barrier-free accessibility.

3. Sustainability

A common view among respondents was the idea of a 2026 Games legacy that would be more sustainable than any previous Games. This extends across a wide range of possible strategies, from ongoing economically sustainable venues that are accessible and useful to the public after the Games, to an environmentally sustainable Games that promotes environmental best practices and carries them forward into the city's future.



SECTION 3. **STAKEHOLDER AND GOVERNMENT RELATIONS**



3.0 OVERVIEW

The purpose of the stakeholder and government review was to understand opinions, attitudes and perceptions of impacted venue operators and stakeholder groups regarding Calgary's potential bid for the 2026 Olympic and Paralympic Winter Games (OPWG). In this instance, stakeholders are those groups and organizations that would be directly involved in bidding for and potentially hosting the Games. To summarize the feedback, support is high among national, regional and local sport organizations and venue operators. Canada's winter sport community is universally supportive. Venue stakeholders are enthusiastic and expect to be heavily involved in any future efforts to bid and host.

The support of Treaty 7 First Nations is conditional on a meaningful and impactful involvement of the Nations in the OPWG. Their inclusion would have to be tangible, respectful and leave a meaningful legacy for their communities.

Elected leaders are awaiting the results of the Calgary Bid Exploration Committee (CBEC)'s work before finalizing their own perspectives on whether or not they would be supportive of a Calgary bid. Consequently, our government engagement efforts focused on mapping out the landscape in which the federal and provincial governments would be approached with a request to support a bid should Calgary decide to proceed.

3.1

SCOPE OF ANALYSIS

The goal of our engagement process was to impartially assess the opinions, attitudes and perceptions of Calgarians and Bow Valley Corridor residents, community organizations and stakeholders regarding Calgary’s prospective bid for the 2026 OPWG. Following a competitive vendor selection process, we selected Stone-Olafson, a Calgary-based research consulting firm, to design and implement a research program. Stone-Olafson supported and guided the engagement with stakeholders and public to ensure consistent methodologies across all research activities.

The purpose of the research was to understand the barriers and motivations that impact a decision to pursue an Olympic bid. The engagement process aimed to gather a wide spectrum of perspectives on both the feasibility and prudence of a bid and to initiate relationships with key stakeholders that would play a role in the bid development process should the City decide to move forward.

Direct input from stakeholders was solicited. Stakeholders were defined as those groups and organizations that would be directly involved in or affected by bidding for -- and potentially hosting -- the Games. The stakeholder groups engaged included:

- operators of 1988 Olympic legacy sport venues under consideration in the CBEC Master Facilities Plan (MFP)
- local amateur and municipal sports organizations

- Treaty 7 First Nations
 - Bearspaw Nation
 - Blood Tribe
 - Chiniki Nation
 - Piikani Nation
 - Siksika Nation
 - Tsuut'ina First Nation
 - Wesley Nation

- Métis Nation

- Canadian Olympic Committee and Canadian Paralympic Committee members

- affected National Sport Organizations

- federal, provincial and municipal agencies

3.2 REQUIREMENTS AND PROCESS

To ensure we heard from all the directly impacted stakeholders, Stone-Olafson used both in-depth interviews and an online questionnaire to identify alignments and synergies, as well as risks and non-supporting agencies' concerns.

Due to the complexities involved in identifying the appropriate staff in government agencies, Global Public Affairs was engaged for assistance in connecting with provincial and federal government stakeholders. The engagement process for government stakeholders is discussed in greater detail below (see [Section 3.4](#)).

3.2.1 IN-DEPTH INTERVIEWS

Stone-Olafson conducted interviews with the operators of the 1988 Olympics legacy sport venues under consideration in the MFP. Completed in early April 2017, these 30-minute qualitative interviews followed a comprehensive structured discussion guide. From the interviews, CBEC gained a qualitative understanding of the potential alignment of an Olympic bid and hosting with stakeholder priorities and strategic plans. The interviews also provided a gauge of their level of support for a potential bid, valuable insight into potential issues, and an assessment of the overall impact on Calgary from their perspective. The team conducted similar interviews with select provincial, municipal and civic sports organizations (see *Appendix 3A: Interview Candidate Organizations*).

3.2.2 ONLINE INPUT QUESTIONNAIRE

We invited 159 professional staff and elected volunteer leaders from the Canadian high-performance sport system to participate in our research (see *Appendix 3B: Online Inputs Candidate Organizations*). They were directed to a secure online questionnaire specifically designed to capture the unique perspective of their various sport affiliations. Offered in both English and French, the questionnaire solicited concerns and observations regarding Calgary's potential bid through a series of primarily open-ended questions.

3.2.3 INDIGENOUS PEOPLES INTERVIEWS

Recognizing that the local First Nations and the Métis Nation are both stakeholders and potentially impacted communities, CBEC met with representatives from all of the Treaty 7 First Nations and the Métis Nation of Alberta. CBEC conducted interviews designed to ensure understanding of each nation's perspectives and concerns as well as their views on the potential opportunities should Calgary choose to proceed with a bid. Stone-Olafson conducted these interviews in April 2017 with the assistance of representatives from CBEC's stakeholder and government relations and public engagement and community impact teams. CBEC also met with local representatives of the Métis Nation of Alberta, Region 3.

3.3

RESULTS AND CONCLUSIONS

Support for a potential bid for the 2026 Olympic and Paralympic Winter Games is high amongst national, regional and local sport organizations and venue stakeholders. The winter sport community is universally supportive, as shown in Figure 3.1. Only two per cent of the summer sport organizations opposed the concept. Local concerns centre on diversion of funding and the appropriateness of legacy facilities for the community. Venue stakeholders expressed high levels of support and indicated they would expect to be heavily involved in the development of a bid.

Treaty 7 First Nations were clear their support is conditional on a meaningful and impactful involvement of Treaty 7 Nations in the OPWG. Their inclusion would have to be tangible, respectful and leave a meaningful legacy for their communities.

3.3.1 HIGH-PERFORMANCE SPORT COMMUNITY

The perceived potential benefits touched on frequently by sport representatives as listed in *Appendix 3B* included:

Sport development:

Many see the Olympic and Paralympic Winter Games as a catalyst for the development of sport at all levels. Responses clearly suggested a belief that sports are one of the key building blocks of wellness in a community.

National pride:

Respondents communicated the idea that an Olympic and Paralympic Winter Games has the potential to bring a country together, inspiring and motivating citizens while also increasing the profile of sports in Canada.

Legacy benefits:

In addition to the facilities and infrastructure legacies of a Winter Games hosted in Canada, respondents pointed to a number of positive long-term impacts, including: economic diversification, increased sport funding and the corresponding ripple effect for the economy, and a boost to Canada's global reputation.

Historic success:

With reference made to other Games, respondents expressed significant concerns regarding economic costs and feasibility. However, frequently pointing to Canada's successful hosting of the 1988 and 2010 Olympic Winter Games, supporters appear confident that Calgary can plan and execute a successful and economically prudent Winter Games.

Analysis of the open discussion responses revealed four key themes:

1. The national sport community is supportive of a potential Games bid.

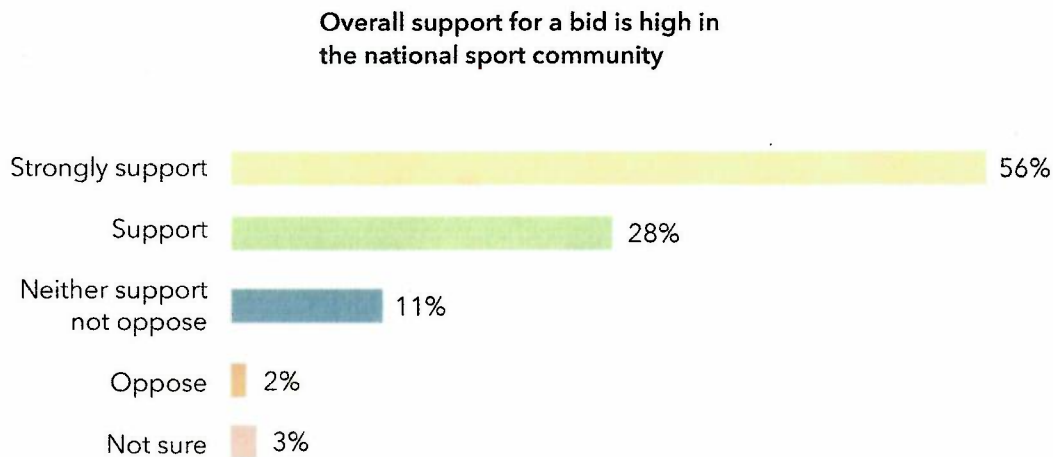
The Canadian sport community is supportive of a bid for the 2026 OPWG with 84 per cent of respondents indicating their support, as shown in Figure 3.1. Key reasons for supporting a bid included the potential boost for sport development across Canada, the opportunity to showcase Canadian athletes on the world stage, and the idea that the Games could act as a unifying driver to bolster national pride.

“The legacy should focus on capacity-building in the Canadian Sport System and try to avoid infrastructure projects that either become white elephants or deliver support for a limited stakeholder group.”

- Online questionnaire respondent

Stakeholders suggested that the inclusion of the Winter Paralympics provides an additional upside for hosting, with one-third of the respondents seeing the Winter Paralympics as inseparable from the Games themselves.

Figure 3.1 Overall support - national sport community



Source
STONE-OLAFSON

2. Costs and economic feasibility are key concerns.

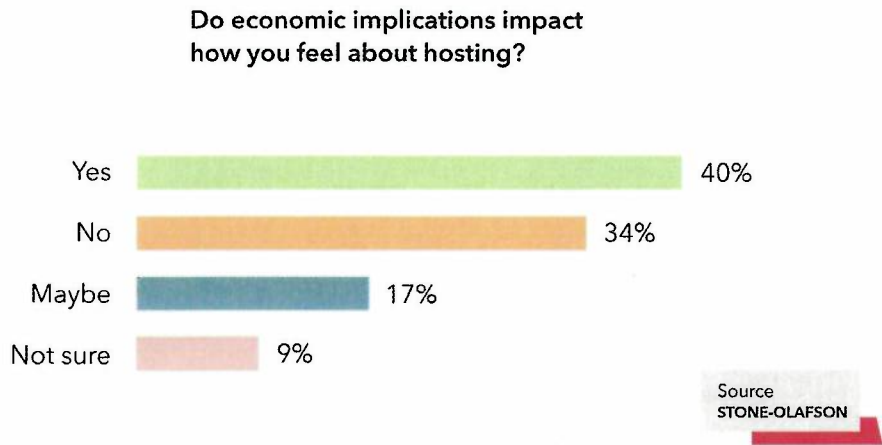
Support from sport representatives was conditional and dependent on the establishment of acceptable economic risks. Despite the high levels of support expressed, 40 per cent of respondents indicated that economic implications would influence their support (see Figure 3.2).

“*A national framework to support ongoing sport development. This would be in partnership with Department of Heritage. Legacy facilities are OK, but a durable framework for support would be ideal.*”

- Online questionnaire respondent

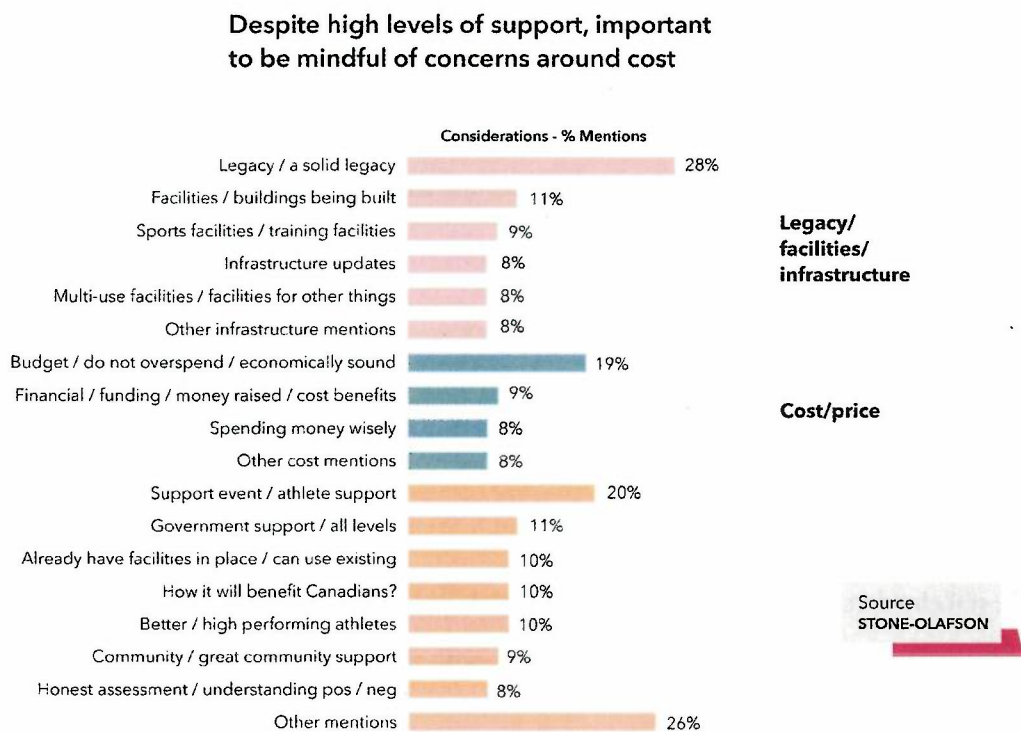
An analysis of the survey feedback suggests these concerns are related to high costs and the potential for budget overruns. Stone-Olafson observed that the sporting community expressed the same cost concerns as other stakeholders and community groups. Simply put, respondents wondered, “Is it worth it economically?” and “Do the benefits outweigh the high costs?”

Figure 3.2 Economic implications



The questionnaire concluded with the open-ended question, “What do you think is the most important thing that CBEC should consider in its evaluation of a potential bid from the perspective of your support or stakeholder group?” Respondents could elaborate on as many considerations as they wished. Stone-Olafson grouped the responses into common messages and tabulated the frequency of each (see Figure 3.3).

Figure 3.3 Key concerns



3. An inclusive sport legacy is critical.

Survey participants expressed positive views on the sport legacies of both the 1988 and 2010 Winter Games. However, they also suggested that future legacies should go beyond building excellent facilities; they should benefit athletes from all levels and types of sport in Canada.

“*Canada does not have enough funding in the system to have the legacy be only for Calgary, for Alberta or for winter sport. Somehow the legacy must cross the country and benefit summer sport as well.*”

- Online questionnaire respondent

Participants noted that future legacies should offer a positive impact for both winter and summer sports. Summer sport representatives highlighted concerns that a Winter Games bid could divert limited monetary resources into winter sports and away from summer sports. This may impact overall support of a bid from summer sport organizations and athletes.

“*An investment in the Olympics can translate into an inspired and healthy community -- a community that supports investments in high-performance sporting facilities for both summer and winter sport.*”

- Online questionnaire respondent

3.3.2 VENUE STAKEHOLDER GROUPS, LOCAL SPORTS ORGANIZATIONS AND FIRST NATIONS

Venue stakeholders

Overall, venue stakeholders expressed high levels of support, and they expect to be heavily involved in the bid development. Seven venue stakeholders were interviewed, with the following results:

Canmore Nordic Centre is strongly supportive and enthusiastic. They view a potential bid as an opportunity to build on the 1988 legacy and advance their position as a world-class facility. They expect that any new legacy planning should go beyond sports and consider environmental and social concerns.

Calgary Stampede is supportive and view potential bid-related developments as complementary to their long-range development plans.

The Lake Louise Ski Resort expressed reserved enthusiasm. The complexity of the alpine events in the Games causes concern regarding park usage requirements and increased visitation. If Lake Louise is not used for alpine events, the ski resort operators see a less direct, but still positive, legacy of increased global exposure.

Resorts of the Canadian Rockies, venue operator for Nakiska, is very supportive and expressed an approach to venue development as “looking at new ways to accomplish the Olympics” and “doing what is best.” Proud of their 1988 legacy venue and their role in developing alpine sport in Alberta, they see hosting as an opportunity for continued enhancement of their sport contribution capabilities.

WinSport is fully supportive of a bid and potential hosting, noting that the 2026 OPWG discussions affect the next 30 years, not only the 25 days of potential Olympic events. They see a bid as a valuable community-building exercise for sports, arts and an engaged population, even if the bid does not win.

Calgary Sports and Entertainment expressed a strategic and balanced view of a bid and potential hosting. They are pursuing a new large arena development in Calgary and will do so regardless of a bid decision. They are optimistic about prospects for a new arena that could meet both their medium and long-term needs while providing a venue during the Olympics and Paralympics. They believe that with “the right vision, the right benefits and great management, a potential bid will be accepted by the Calgary public.”

University of Calgary spoke not of the impacts to McMahon Stadium and the Olympic Oval but more to their broad perceptions of a potential bid. Their perspectives are therefore included in the civic partner research in [Section 2](#).

Local sport organizations

In interviews, the six regional and local sport organizations listed in *Appendix 3A* expressed support for a bid, citing several benefits:

- higher profile for sport in the community
- opportunity to grow the participation of youth in sports
- legacy facilities for all levels, from “grassroots” to international events
- increasing sport tourism

Sport organizations feel the 1988 Games left a legacy of Calgary becoming a more active city and believe the same would happen with hosting the 2026 OPWG. Their support was not unconditional; they expressed the same concerns related to economic feasibility and diversion of funds as other community organizations.

First Nations and Indigenous People

As a potential OPWG would take place on traditional territories, the Treaty 7 First Nations and the Métis were engaged as stakeholders. To that end, CBEC engaged in interviews with all Treaty 7 First Nations and the Métis Nation.

A strong and consistent message was conveyed to CBEC throughout these interviews that a potential bid and hosting is an opportunity to improve understanding of Indigenous communities, culture and histories.

Concerns expressed to CBEC during these interviews fell into three main areas: legacy, inclusivity and respect.

Legacy: The First Nations and the Métis believe the 1988 Olympics did not leave a legacy for Indigenous Peoples. In their view, the support of their communities depends on this changing if a potential bid and

- subsequent hosting is to move forward. An appropriate new legacy would include housing, venues and hosting events on Treaty Land. They want the use of their traditional land to be acknowledged and respected in a meaningful way should the Games go forward.

Inclusivity: We heard many mentions of inclusivity, from increased economic activity to representation and involvement throughout the potential bid and Games development; employment, training, volunteering, as

- well as programming and promotion. An example mentioned in several interviews was the involvement of the Nations in the provision of security for the 2002 G8 when world leaders met on their traditional lands.

The Nations were involved in discussions with the government regarding the security plan and service they could provide. Inclusivity is not just a spotlight performance at the opening ceremonies, Rather, it means accessing and acknowledging the skills and knowledge of the Indigenous communities.

“ *Chiefs and council come and go, but a legacy is a community project.* ”
- Treaty 7 Interview Participant

Respect: The First Nations and the Métis all expressed the hope for recognition of their history and accomplishments – athletically, socially and environmentally. They also want a potential bid and hosting to recognize the United Nations Declaration on the Rights of Indigenous Peoples and further the role of Truth and Reconciliation in the community.

In these interviews, CBEC received clear messages that if the City of Calgary was to pursue a bid for the 2026 OPWG, the following should be considered:

- 1** Engage, include and partner with the Indigenous Peoples early in the development process.
- 2** Inform and educate all those involved in Games development about the United Nations Declaration on the Rights of Indigenous Peoples, the Indigenous Policy Framework for the City of Calgary and the Truth and Reconciliation Commission of Canada: Calls to Action.
- 3** Acknowledge the unique opinions, needs, history and circumstances of Indigenous Peoples.
- 4** Make engagement with the Indigenous youth population a priority.
- 5** Ensure increased economic activity is accompanied by lasting legacies.



3.4 GOVERNMENT ENGAGEMENT

Elected officials at all levels of government have indicated that reviewing the results of CBEC's work is a prerequisite for finalizing their own perspectives on whether or not to support a Calgary bid. Consequently, our government engagement efforts focused on mapping out the landscape in which the federal and provincial governments and other impacted municipalities would evaluate a request to support a bid.

To assess the municipal picture, CBEC members and staff met directly with elected leaders and municipal officials from communities that would potentially host events, including Canmore, Banff and Lake Louise.

Given the complexities of the federal and provincial government considerations, we sought professional government relations support, undertaking a competitive vendor selection process. We contracted Global Public Affairs to formulate a government relations plan identifying the relevant government departments, agencies and staff that would be involved in evaluating a request for support as well as those that would be impacted by bidding and hosting should the City decide to proceed with a bid. The summary below provides a high-level overview of the current government landscape. The full report can be found in *Appendix 3D: Government Engagement Report*.



FEDERAL GOVERNMENT ENGAGEMENT

The federal government's current focus on sports and commemorative events is largely centred on the Canada 150 Initiative. In the last few months, this has consumed the attention of Canadian Heritage and Sport Canada. However, in 2016, the federal government announced an external review of sport funding. The review findings are expected to be released in the fall of 2017.

In the 2017 budget, the federal government agreed to invest \$5 million a year for five years in the Athletes Assistance Program – the first funding contributed since 2004. This program assists Olympic- and Paralympic-calibre athletes in their training and competition needs by providing a living, tuition and training allowance. The government, particularly Carla Qualtrough, Minister of Sport and Persons with Disabilities, highlighted this sport investment as an expression of its commitment to sport in Canada.

The budget also committed \$18.9 million over the next five years and an additional \$5.5 million for each of the following four years to support Indigenous youth and sport. This will increase support for culturally relevant sport programming at the community level, strengthen Indigenous leadership and ensure more inclusion of Indigenous Peoples in the national sport system through training and collaboration with National Sport Organizations. It will also establish stable, ongoing funding for the North American Indigenous Games.

In 2016, Calgary Mayor Naheed Nenshi and Prime Minister Justin Trudeau discussed a Calgary bid for the 2026 OPWG. While non-committal, Prime Minister Trudeau emphasized the necessity of having strong public support for a bid¹.

ALBERTA GOVERNMENT ENGAGEMENT

The applicable ministries for the Alberta Government are the Ministry of Culture and Tourism, and the Ministry of Environment and Parks. Preliminary discussions have been held with both and the Government, through these Ministries, is aware that our work is progressing. As noted, they await the results of CBEC's work and City Council's decision as to whether a bid should move forward. At such time armed with the information in our report and the City of Calgary's assessment of the information, they will consider a request for support.

The Alberta Department of Infrastructure's 2017-2020 Business Plan supports investments made in green infrastructure, renewable technologies and environmental smart practices. In addition, the government has a new goal to adopt a life-cycle approach to existing provincial infrastructure, repurposing existing buildings where possible to reduce the carbon footprint. This provincial investment objective aligns with the IOC Olympic Agenda 2020's directions that candidate host cities should repurpose existing infrastructure wherever possible rather than building new.

¹ Canadian Press, December 21, 2016 "Nenshi raises 2026 Olympic bid with prime minister; says it was 'cursory'"

In its 2017 budget, the Alberta government affirmed its commitment to provide \$10 million towards the refurbishment of the sliding track at WinSport. In addition, the Canmore Nordic Centre, host of many international competitions in cross-country skiing and biathlon, is a provincial park and directly operated by the province.

The 2017-2020 Business Plan for Alberta Culture and Tourism recognizes that building the province's culture and tourism industry is a mechanism to grow and diversify the economy. While this could present a potential for government support for a large-scale event with positive implications for Alberta tourism, it must be evaluated against the priorities of other government departments.

SECTION 4.

FACILITIES AND INFRASTRUCTURE

4.0

MASTER FACILITIES PLAN EXECUTIVE OVERVIEW

The Calgary Bid Exploration Committee (CBEC) Master Facilities Plan (MFP) concept is the result of an evaluation process designed to help answer the question of whether it is feasible and prudent for Calgary to bid on the 2026 Olympic and Paralympic Winter Games (OPWG). Covering the full gamut of facilities required for the Games, the MFP encompasses sport competition venues, athletes' villages and media facilities along with transportation and supplementary accommodation needs.

The concept presented herein would deliver an Olympic and Paralympic experience that is dramatically different and much enhanced from that of 1988, while still reusing almost every 1988 facility. Further, the concept aligns to the key reforms of the IOC's Olympic Agenda 2020, as well as the long-term plans of the community and respective stakeholders. The MFP team has concluded that from a facilities perspective, hosting the Games in 2026 is indeed feasible.

The centrepiece of this MFP is an exciting idea for a Games hub in the heart of Calgary, at Stampede Park. [REDACTED] existing and proposed facilities in the area [REDACTED]. Stampede Park is well-suited to be the natural gathering place for competition, media coverage and community celebration. With temporary seating added around the famous racetrack enabling Calgarians to take in the athletes' parade, the Stampede Grandstand becomes an innovative venue for opening and closing ceremonies. Hosting the Olympics would also give a major boost to the City's plans to revitalize the Rivers District into a vibrant hub for urban arts and culture.

Just as the Calgary Stampede draws Calgarians and international visitors into a safe, secure park perimeter every summer to explore a wide variety of sporting, entertainment and cultural events, a Stampede Olympic Park would be a secured and ticketed area where Calgarians and visitors could soak up the Olympic spirit with a reasonably priced admission ticket.

We acknowledge the invaluable assistance and input of many individuals and organizations, including: a group of talented volunteers from the design and construction sectors; numerous leading Calgary architectural, engineering and cost consultants; a core team of experienced Olympic and sport advisors; and support and advice from The City of Calgary and the mountain communities.

CBEC developed a concept in accordance with the following MFP **guiding principles**:

- 1** Maximize the reuse of existing facilities and sport venues wherever possible, reducing the overall cost of hosting a potential Games.
- 2** Effectively leverage facilities and infrastructure otherwise planned for Calgary and the surrounding region.
- 3** Meet all technical specifications for hosting the OPWG as defined by International Federations (IFs) and the International Olympic Committee (IOC) (see *Appendix 4A: Sport Rules and Regulations*).
- 4** Mitigate adverse impacts to residents and the region's environment.
- 5** Cluster venues wherever possible to support efficient and effective operations, including considerations such as transportation, security and spectator viewing.
- 6** Strive to find a balance between legacy aspirations and affordability, endeavoring to support a viable and sustainable legacy of sport venues (utilized for a variety of purposes, from recreational use to high-performance sport to international event hosting) for the benefit of Calgarians, Albertans and Canadians.
- 7** Ensure the MFP concept aligns with the IOC's Olympic Agenda 2020, including the key recommendations for hosting the Games:
 - emphasizing use of existing, temporary and demountable venues
 - embedding sustainability principles into the hosting plan

For a detailed description of the initiative and its recommendations, see *Appendix 4B: Olympic Agenda 2020*.

The proposed MFP provides a concept that is deemed to be both feasible and aligned with the aforementioned guiding principles at this point in time. We acknowledge that should a bid go forward, conditions and baseline assumptions may change, thereby impacting the [REDACTED] as presented. Furthermore, it is also recognized that whether or not a bid proceeds, the due diligence gathered through the MFP evaluation process will inform future government and stakeholder decisions regarding the renewal and revitalization of sport infrastructure facilities, specifically the 1988 legacy venues.

Highlights of our MFP concept include:

■ **Creating a Stampede Park ice-sport and celebration cluster**

to host Hockey, Figure Skating, Short Track Speed Skating, Para Ice Hockey, Opening and Closing Ceremonies, Victory Ceremonies, the International Broadcast Centre and the Main Press Centre. Notable in the Stampede Park cluster, we have assumed that construction of the proposed new event centre (NHL-sized arena) proceeds. [REDACTED]

[REDACTED] cluster supports efficient and effective operations, including lowering OPWG-related transport and security costs. See [Section 4.2.1](#) for details.

■ **Enhancing WinSport to create a snow and sliding-sport cluster**

to host Bobsleigh, Skeleton, Luge, Aerials, Moguls, Slopestyle, Halfpipe, Big Air and Para Bobsleigh (if added to the Paralympic program). See [Section 4.2.9](#) for more information.

■ **Reusing four key venues constructed for the 1988 Games**

The Olympic Oval at the University of Calgary would host Long Track Speed Skating. The Nakiska Ski Area would host Alpine Technical, Snowboard Parallel Giant Slalom, Ski and Snowboard Cross, Para Alpine and Para Snowboard. The Canmore Nordic Centre would host Biathlon and Cross-Country Skiing, Para Biathlon and Para Cross-Country. WinSport would host all of the sliding sports (Bobsleigh, Luge and Skeleton), Snowboard and Freestyle events.

■ **Adding the Lake Louise Ski Resort as an Olympic venue**

to host the alpine speed events (Downhill and Super G). These events would be held on the existing courses at Lake Louise, which stage World Cup events each year.

■ **Considering three options for Ski Jumping, including**

upgrading existing facilities at WinSport; reusing the existing facilities at Whistler Olympic Park; and constructing a new jump at the Canmore Nordic Centre. At this time, CBEC has not provided a recommended venue option due to complexities of the analysis, depth of the unique opportunities and challenges at all venues, as well as time constraints on the process. CBEC has concluded that additional due diligence is required before a representative concept is finalized. CBEC's consideration of the merits of these options is discussed in [Section 4.2.12](#).

■ **Building athletes' villages and other housing**

with an eye to meeting current and future affordable housing needs in Calgary and the Bow Valley. In addition to the athletes' village proposed [REDACTED], the MFP considers mountain athletes' village locations [REDACTED]. Housing for media and security personnel is planned for a number of locations [REDACTED]. Details of the housing concepts along with the legacy uses and value for each are included in [Section 4.3.1](#) and [Section 4.3.2](#).

■ **Delivering Games transportation sustainably and without major new investment**

Prospective transport solutions rely heavily on public transit systems, thereby minimizing the carbon footprint and leveraging existing and proposed transit systems. Studies by the City of Calgary transportation department as well as Olympic experts conclude that there are no major challenges associated with hosting the Games from a transport perspective and that no significant investments in transport infrastructure are required to deliver the Games. Of note, the Government of Alberta is currently funding the Calgary-Bow Valley Mass Transit Feasibility Study, including assessing passenger rail service and bus/coach service for communities between Calgary and Lake Louise. The study is expected to be completed by the end of 2017.

Figure 4.1 Representative Concept Summary Capital Costs for Sports Venues

Cluster	Events	Venue	Cost (in '000s)	
Stampede Park	Hockey 1	New Event Center	\$0	
	Hockey 2	Stampede Corral	\$18,884	
	Figure Skating Short Track Speed Skating	Saddledome	\$9,520	
	Figure Skating Training	Agrium Western Event Centre	\$1,273	
	International Broadcast Centre Main Press Centre	BMO Centre, Big Four Building and Demountables	\$78,752	
	Open and Closing Ceremonies Victory Ceremonies Daily Live Site	Grandstand	\$26,055	
	University of Calgary	Long Track Speed Skating	Olympic Oval	\$50,204
		Curling	Foothills Fieldhouse	\$17,505
WinSport	Bobsleigh Luge Skeleton	Sliding Track	\$19,675	
	Aerials Big Air Halfpipe Moguls Slopestyle	WinSport	\$42,680	
	Ski Jumping Nordic Combined	WinSport	\$70,733	
Mountain Venues	Biathlon Cross-Country	Canmore Nordic Centre	\$7,453	
	Parallel Giant Slalom Ski Cross Snowboard Cross Slalom Giant Slalom	Nakiska Ski Area	\$28,060	
	Downhill Super G Combined	Lake Louise Ski Resort	\$21,028	
	Total		\$391,822	

4.0.1 VENUE AND FACILITY DEVELOPMENT ASSUMPTIONS

As is necessary in the development of any concept, we established a set of foundational assumptions, including:

■ A new ±18,000 seat arena/events centre will be built and fully operational in the Rivers District area prior to 2026. CBEC also assumes OPWG hockey will be played on an NHL-sized ice surface.

■ A new multi-purpose fieldhouse will be built in the Foothills Athletic Park prior to 2026.

■ The addition to the BMO Centre known as Hall F will be completed prior to 2026. A comprehensive development proposal has been put forward by the Calgary Stampede to expand the BMO Centre and the adjoining Roundup Center at Stampede Park, but funding and timing has not been confirmed.

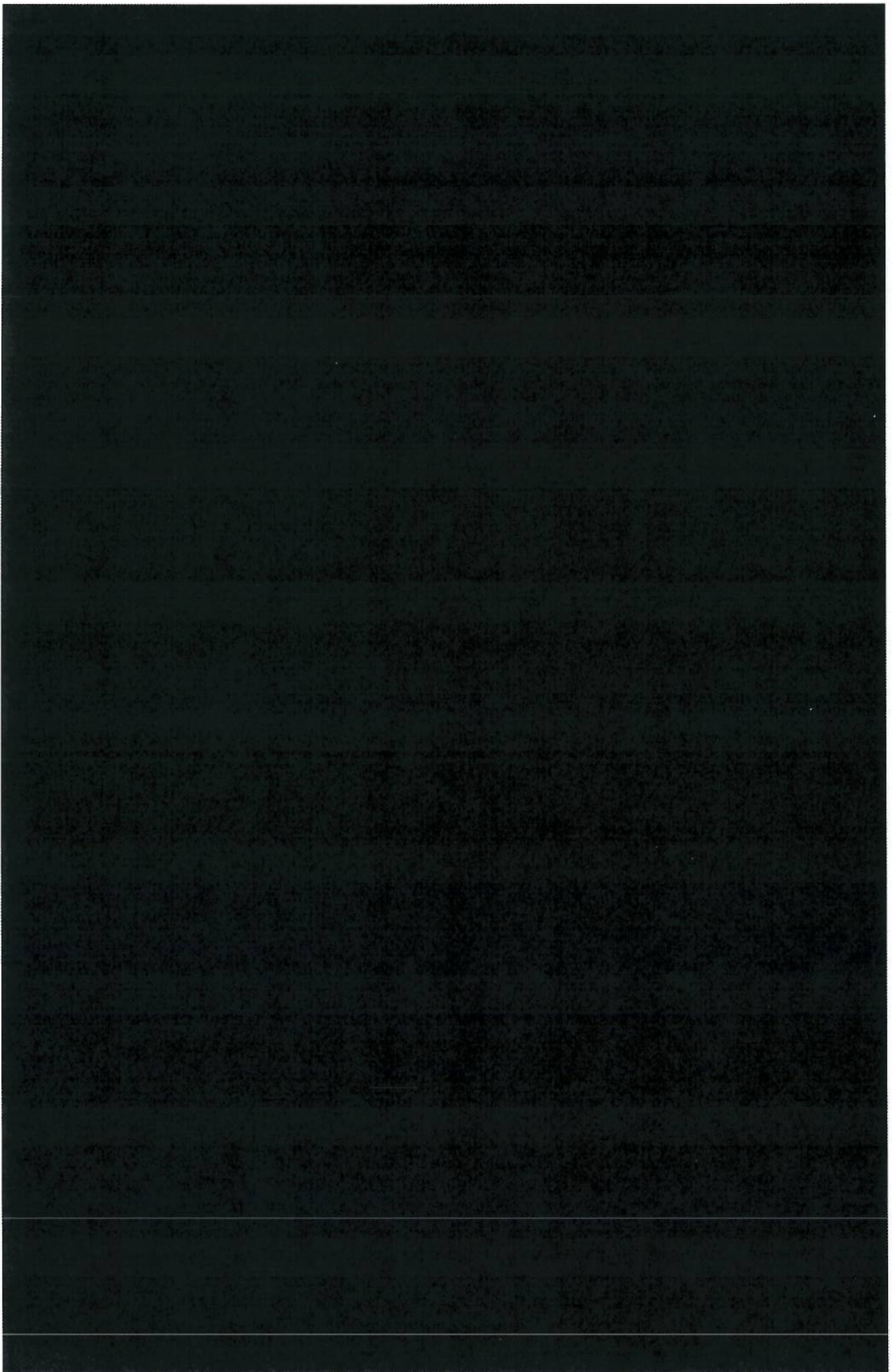
■ The Canmore Nordic Centre’s \$10 million revitalization, currently in the design phase, will be funded and completed prior to 2026.

■ Lake Louise Ski Resort’s Master Redevelopment Plan will be substantively approved by Parks Canada prior to 2026.

■ The proposed \$20 million upgrade and revitalization of the WinSport Sliding Centre will be funded and completed prior to 2026.

■ [REDACTED]

[REDACTED]



4.1

MFP CONCEPT DESIGN PARAMETERS

4.1.1 PROSPECTIVE 2026 OPWG EVENT PROGRAM

The OPWG have evolved considerably since Calgary 1988 and it is important to understand how this evolution impacts the facility requirements for competition venues. A number of new sports have been added to the OPWG program since 1988, in part to ensure gender equity in the sport program. These additions include:

- Curling
- Freestyle Aerials
- Freestyle Moguls
- Short Track Speed Skating
- Skeleton
- Ski and Snowboard Slopestyle
- Ski and Snowboard Cross
- Snowboard Parallel Giant Slalom
- Snowboard Big Air
- Women's Hockey

The Paralympic Games are now a strong and vibrant component of the overall hosting obligation and are hosted approximately two weeks after the close of the Olympic Games at the same venues and facilities. The two events effectively comprise a fifty day-long celebration of sport. Of note, Calgary did not host the Paralympic Games in 1988, although Calgary did host some Paralympic demonstration sports as well as some Olympic demonstration sports, including Curling and Freestyle Skiing.

The Paralympic sports that have been added to the OPWG program since 1988 include:

- Para Alpine Skiing
- Para Biathlon
- Para Cross-Country Skiing
- Para Ice Hockey
- Para Snowboard
- Wheelchair Curling

International media coverage and broadcast requirements have also expanded, as have the hosting requirements for the many athletes, spectators and media that come to the host city.

These increases in overall scope also require that future hosts of the OPWG consider both existing facilities that require revitalization upgrades and enhancements, and new facilities with the capacity to host what the OPWG and International Federations (IFs) will need in subsequent years.

For the purposes of the planning process, CBEC used the event program and schedule proposed for the Olympic and Paralympic Winter Games in PyeongChang in 2018 [REDACTED]. The IOC advised CBEC that this represents the most likely program for 2026, although the program composition is subject to change.


Because the venue combinations are different in PyeongChang than proposed in our concept, we developed a prospective adjusted 2026 OPWG schedule for planning purposes (see *Appendix 4D: Calgary 2026 Olympic and Paralympic Winter Games Proposed Schedule*). The prospective schedule illustrates how full the Olympic and Paralympic program has become.

Figure 4.2 provides an estimate of the number of athletes and team officials and corresponding estimates for each Olympic Village (Calgary Village and Mountain Village). The number of officials noted below is drawn from the IOC Host City Operational Requirements calling for a total village capacity for athletes and team

officials of 4,900 and an allowance for Additional Team Officials (ATO) of 1,100 (see *Appendix 4E: Host City Operational Requirements*). Figure 4.3 shows projections for the 2026 Winter Paralympics.

Figure 4.2 Village Estimates Based on PyeongChang Sport Program





Calgary - City Venues	Athletes	Officials	Totals
Sliding Sports			
Bobsleigh and Skeleton	220	198	418
Luge	110	99	209
Freestyle Skiing			
Moguls	60	54	114
Aerials	50	45	95
Halfpipe	54	49	103
Ski Slopestyle	54	49	103
Snowboard			
Halfpipe	54	49	103
Big Air/Slopestyle	70	63	133
Ski Jumping and Nordic Combined	155	186	341
Ice Hockey (Men's and Women's)	484	436	920
Curling	116	104	220
Speed Skating	180	162	342
Short Track Speed Skating	120	108	228
Figure Skating	148	133	281
Total Calgary Village	1,875	1,735	3,610
Mountain Venues	Athletes	Officials	Totals
Alpine Skiing	320	384	704
Freestyle Skiing			
Ski Cross	64	77	141
Snowboard			
Snowboard Cross	70	84	154
Parallel Giant Slalom (PGS)	64	77	141
Cross-Country Skiing	310	372	682
Biathlon	230	276	506
Total Mountain Village	1,058	1,270	2,328
Total All Villages	2,933	3,005	5,938
IOC Requirements per the IOC Host City Operational Requirements			
Athletes and Team Officials		4,900	
Additional Team Officials (ATO), estimated based on 600 rooms		1,100	
Total		6,000	

 Figure 4.3 Paralympic Village Estimates Based on PyeongChang Sport Program

Calgary - City Venues	Athletes	Officials	Totals
Para Ice Hockey	144	130	274
Wheelchair Curling	60	54	114
Total Calgary Village	204	184	388
Mountain Venues	Athletes	Officials	Totals
Para Alpine Skiing	190	209	399
Para Snowboard	106	117	223
Para Cross-Country Skiing and Para Biathlon	170	187	357
Total Mountain Village	466	513	979
Total All Villages	670	696	1,366

4.1.2 DESCRIPTION OF MFP PROCESS FRAMEWORK

The MFP development process attempts to maximize the use of the Calgary 1988 Winter Games legacy while working within the evolving hosting requirements of the OPWG. Our work was guided by the following strategic approach and ensuing objectives:

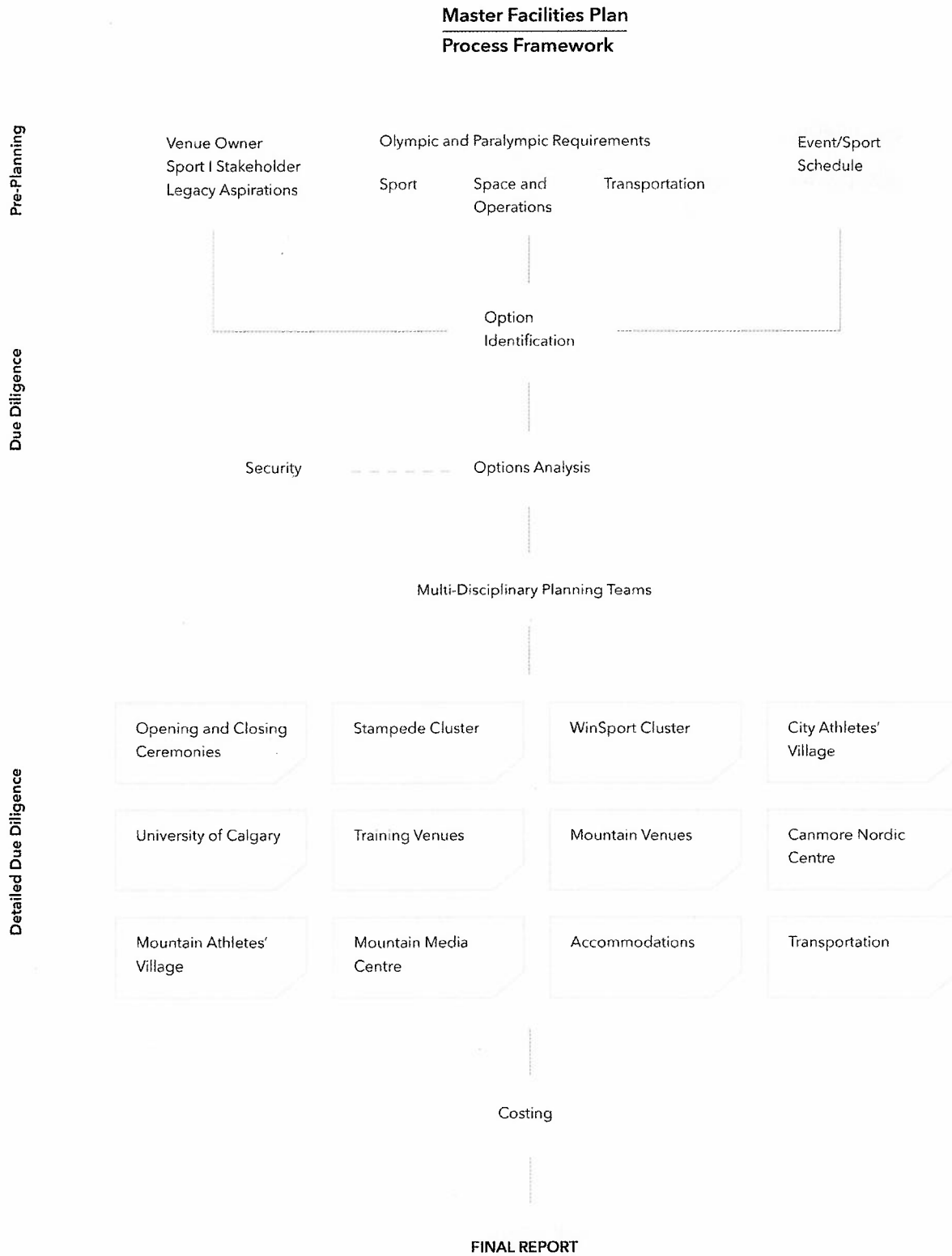
-  To develop a strong collaborative process to align OPWG needs with legacy opportunities, identified needs and long-term goals of stakeholders.
-  To establish informed consultation with the sport community at the municipal, regional and national levels to identify key legacy objectives.
-  To provide a clear and objective assessment of all existing and available venues that could serve as competition venues in the city and mountain region communities.
-  To undertake a practical analysis of the long-term development plans of the major stakeholders to identify options that align with their current and future development plans.

To achieve these objectives, CBEC established a logical and sequential process for developing a robust and thoughtful MFP. The process was broken out into three phases:

- Phase 1: pre-planning
- Phase 2: due diligence
- Phase 3: detailed due diligence

Throughout the three phases of the MFP planning process, CBEC's work was being reviewed by the MFP board sub-committee; at completion, the draft plan with options was submitted to the full CBEC board for review and refinement. The MFP process framework is illustrated in Figure 4.4 and further defined on pages 92 to 95.

Figure 4.4 Master Facilities Plan Process Framework



PHASE 1: PRE-PLANNING

The main steps of this phase included developing the MFP process and project plan, aligning it with the planning process of key stakeholders, developing a practical understanding of long-term community development plans already in progress and documenting the key Olympic and Paralympic requirements. Key steps are outlined in more detail below.

■ **Olympic and Paralympic Winter Games hosting requirements:**

An important step in the planning process is to ensure that the MFP meets the requirements for hosting the OPWG. CBEC undertook work to understand the needs of the current OPWG program, including IF requirements as well as the likely evolution of sports and events (see *Appendix 4A: Sport Rules and Regulations*). As sports and requirements evolve, there are often resulting changes in space requirements, security impacts and technical infrastructure that may necessitate facility upgrades to existing venues or new competition venues.

■ **Venue briefs:**

To aid in better understanding the Games hosting requirements, CBEC (with the assistance of sport, Olympic and Paralympic experts) developed a series of venue briefs that capture the hosting requirements for the OPWG. CBEC also established informed consultation with the sport community at the civic, regional and national levels to confirm requirements and identify long-term plans and objectives. The briefs capture:

- Field of play sport requirements (focusing on the snow and ice venue requirements).
- Operational and ancillary space requirements (addressed in Phase2)
- Venue-based transportation requirements (addressed in Phase3).

The venue design requirements for multi-sport games such as the Olympics and Paralympics require consistency between venues, and therefore many of the requirements are similar from venue to venue. This is to ensure that all user groups and attendees receive the same experience. It is also to assist in controlling costs related to the overlay

build and operational planning. For example, all logistics back of house (BOH) spaces have the same capacity, design and operational program. Although both city and mountain venues vary in capacity, venue clustering opportunities and operational needs, the basic design and operational principles remain the same.

PHASE 2: DUE DILIGENCE

During this phase, we assessed all the existing and available venues that could serve as competition venues in the city and mountain region communities against the OPWG requirements identified in Phase 1. We then finalized a short list of potential options requiring more detailed due diligence, with a priority given to:

- The ability of each option to meet the technical sport and hosting requirements of the OPWG documented in the pre-planning phase.

- Identifying those investments that would be required to revitalize and enhance the facility legacy of 1988 to ensure continued service for the next generation of Calgarians, Albertans and Canadians. This aspect is a particular focus of CBEC, in keeping with its overall mandate.

To the greatest extent possible, the project teams focused on the identification and evaluation of multiple venue options. In many cases, several venue options were identified prior to the development of the most workable options for further consideration and planning.

Considering best practices from past hosts, including clustering venues to gain efficiencies in operational, transportation and security costs, was a key strategy in the development of options and recommendations. While not always possible, this strategy has led to potential synergies, particularly at Stampede Park, WinSport's Canada Olympic Park and the Canmore Nordic Centre. With an emphasis on clustering, which has become an accepted strategy for OPWG, the preferred concept overview is organized by cluster rather than sport.

For the review and evaluation of operational and ancillary space requirements, CBEC engaged Olympic and Paralympic experts to assess the operational, overlay and space implications of each identified venue option to understand the potential venue cluster. For example, operational requirement briefs were prepared for Stampede Park, University of Calgary, the Banff Centre, Olympic Villages and Olympic Ceremonies, in addition to the sport-specific venues.

The venue briefs can be found in *Appendixes 4H – 4V*.

For the review and evaluation of the field of play sport requirements, CBEC engaged sport-specific experts and an experienced mountain master planner to assist in articulating the associated requirements and reviewing potential venues in the city and mountain region.

Based on the Olympic experts' venue analyses, we identified gaps relative to the overall requirements. These gaps defined the scope of work for CBEC's architectural, engineering and cost consulting teams.

PHASE 3: DETAILED DUE DILIGENCE

This phase involved appointing multi-disciplinary project teams of leading Calgary architectural, engineering and cost consultants to assist in the detailed evaluation of needed venue upgrades and to develop cost estimates for the venue options. To accomplish this, we carried out a more detailed analysis of the short-listed options:

- To further explore the ability of the options to meet the revitalization needs of the older venues, including potentially enhancing the venues' legacies to better serve sport and community.
- To ensure the options will meet the OPWG hosting requirements.

CBEC assembled project teams for each of the major venues to identify and evaluate options from a variety of perspectives, including sport requirements, venue owner plans, operational requirements, engineering constraints and environmental considerations. The multi-disciplinary project teams generally included:

- CBEC project managers, under the direction of CBEC's Director of Exploration
- senior qualified volunteers
- venue representatives

- Olympic and Paralympic experts
- sport experts, selected in consultation with appropriate national sport organizations (NSOs) and/or IFs
- architectural and engineering professionals, including a lead architectural resource and specific disciplinary experts (civil, structural, electrical, environmental)

As part of the venue operator and key stakeholder engagement process, CBEC requested that each key planning partner identify a lead planning resource that would participate in the work and marshal internal resources as required to assist in the overall planning process. For the most part, the venue operator and key stakeholder lead representatives are senior executives or officials from the respective organizations and there has been exceptional support and commitment throughout the planning process.

We also engaged a small advisory team of Olympic and Paralympic experts with broad OPWG experience. This advisory team provided the project managers, venue owners and key stakeholders with additional clarity on hosting requirements; ensured that the MFP is Olympic- and Paralympic-ready; and assisted with the identification and evaluation of options. Team members include an overall Olympic and Paralympic delivery expert, a venue infrastructure and overlay expert (with a supporting team), an Olympic and Paralympic villages expert, and an Olympic and Paralympic transport expert. Background information for the team of experts can be found in *Appendix 4F: Olympic Experts - Curricula Vitae*.

Where required, CBEC also retained sport experts to assist in the identification and analysis of options in conjunction with the NSOs. As noted above, there has been relatively more involvement with the snow and sliding sports given the complexity of the sport field of play and venue requirements.

Additionally, we engaged architects, engineers and cost consultants to work with CBEC and its advisors to conduct more detailed studies of course designs, venue development options, test fits, geotechnical and environmental considerations and cost projections related to the overall venue requirements. The architectural and engineering expertise was engaged to support specific venue projects. This professional support was contracted directly by CBEC pursuant to a comprehensive

call for qualifications conducted by the Calgary Municipal Land Corporation (CMLC). In all, 46 firms submitted proposals with 160 individual resumes. Each of the firms selected made a significant commitment by having a partner lead the work.

The project team's findings are summarized in the overview for each venue in [Section 4.2](#). Full venue reports can be found in *Appendixes 4H - 4V*.

4.1.3 OTHER KEY ASSUMPTIONS

In addition to the assumptions regarding future venue development outlined in [Section 4.0.1](#), the Master Facilities Plan is based on the following key assumptions:

- The number of attendees (e.g., athletes, coaches, officials, spectators) will be largely based on Olympic and Paralympic events and participants forecast for PyeongChang 2018.

- The field of play requirements for all the events are the current International Federation (IF) rules and requirements, included in *Appendix 4A*. The field of play is the area where competition takes place.

- This area is the main focus of a venue, with each sport meeting the specific requirements for competition as outlined by each IF.

- Olympic overlay requirements, transportation requirements and accommodations requirements as specified in the 2024 Host City Operational Requirements and Host City Contract Principles (see *Appendix 4E* and *Appendix 4G*). The IOC has not yet released requirements for 2026. Overlay relates to the temporary elements that are added to more permanent buildings to enable the operation of major sporting events or festivals and includes tents, trailers, temporary power distribution, seating, concessions, washrooms, broadcast infrastructure and other elements.

- Any other related aspects based on the IOC's Host City Contract Operational Requirements.

In addition to the above criteria, all the options being considered for proposed venues and venue clusters, accommodations and transportation were tested against existing plans and policies and vision statements for Calgary and the region.

4.1.4 ALIGNMENT OF MFP CONCEPT WITH GUIDING PRINCIPLES

The development of MFP concept was based on the guiding principles described in [Section 4.0](#). These principles and strategies underpin the recommended concept and proposed venues, summarized in Figure 4.5 and explored in more detail in [Section 4.2](#).

Figure 4.5 MFP Alignment with Guiding Principles

	1. Maximize the reuse of existing facilities and sport venues	2. Effectively leverage otherwise planned facilities	3. Meet all of the technical specifications	4. Mitigate adverse impacts to residents and the region's environment	5. Leverage venue clustering	6. Strive to find a balance between legacy aspirations and affordability	7. Ensure an MFP concept aligns with the IOC's Agenda 2020
New Event Center		●	●	●	●	●	●
Foothills Fieldhouse		●	●	●		●	●
Saddledome	●		●	●	●	●	●
Stampede Corral	●		●	●	●	●	●
Grandstand	●		●	●	●	●	●
BMO Centre/ Big Four Building	●	●	●	●	●	●	●
WinSport Sliding Track	●	●	●	●	●	●	●
WinSport Snow Olympic Oval	●		●	●	●	●	●
Canmore Nordic Centre	●	●	●	●	●	●	●
Nakiska Ski Area	●		●	●	●	●	●
Lake Louise Ski Resort	●	●	●	●		●	●

4.2

MFP CONCEPT DETAILS

The following sections provide an overview of the detailed due diligence carried out on each venue in the MFP concept. A costing summary for the individual venue is included in the overview. A summary of overall venue costs, as well as background on the costing methodology are included in [Section 5: Capital Cost Summary](#).

4.2.1 STAMPEDE PARK CLUSTER OVERVIEW

About the cluster

Clustering the venues at Stampede Park will support a memorable experience for athletes, media and visitors while also maximizing operational efficiencies, reducing costs and supporting the long-term vision to transform the surrounding area into a vibrant revitalized urban district.

Stampede Park offers a central location and adequate space to host many of the non-competition venues, including the International Broadcasting Centre, the Main Press Centre, the Opening and Closing Ceremonies, and Victory Ceremonies. [REDACTED] The park can also host some of the most popular spectator events, including Hockey and Figure Skating.

The key benefits of a venue cluster at Stampede Park include:

- reduces security costs
- leverages public transit

- facilitates operational efficiencies
- creates a central “heart of the Games” – a confluence for sport and celebration open and accessible to all Calgarians and visitors

Security

Managing security costs is an important priority in the hosting of Olympic and Paralympic Games. Centralizing competition and non-competition venues in fewer locations provides the opportunity to streamline security logistics and operations and consequently reduce manpower and infrastructure costs for security operations.

Transportation

As the City of Calgary grows its transportation network, Stampede Park is becoming a major transportation hub. The area is already served by the Red Line LRT, which moves tens of thousands of people in and out of Stampede Park each day during the Stampede. The addition of the Green Line LRT will double capacity, greatly easing the pressure of the major crowds expected for the 2026 OPWG. Focusing on public transit for spectator movement will help Calgary reduce its carbon footprint and meet the goals laid out in the sustainability strategy required by the IOC. [REDACTED]

[REDACTED]

[REDACTED]

Operations

Operating a stand-alone Olympic venue requires the co-ordinated effort of numerous operational functions including transport support, logistics, broadcast, energy, cleaning and waste, technology, accreditation, workforce support, press services, sport services, competition management, venue management, asset protection, event services and more. Each of these functions requires space and access to operate and collectively they represent a significant operating cost for the Games. Co-locating several venues at Stampede Park affords the opportunity to combine service functions across venues, reducing overall space and temporary infrastructure needs, lowering staffing and volunteer costs and gaining economies of scale.

Community celebration

The vision for the Stampede Park cluster is to create a vibrant and interactive gathering place that will be affordable and accessible, featuring daily cultural events, sponsor activations and nightly victory ceremonies. The common location of the International Broadcast Centre and Main Press Centre will provide the world's media with many opportunities for interaction and coverage of the celebrations and Calgary's spirit as well as a compelling backdrop for on-air presentations. General attendance within "Olympic" Parks has become a dynamic feature of recent Games and Stampede Park would seek to offer a similar level of personalized community experience and dynamic engagement.

4.2.2 BMO CENTRE AND BIG FOUR BUILDING VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions using the BMO Centre and Big Four Building to host the International Broadcast Centre (IBC) and the Main Press Centre (MPC), respectively, as these buildings must closely fit the IOC specifications for space and proximity. Both buildings housed media operations during the 1988 Winter Games; however, Olympic space requirements and technical demands for media operations have changed dramatically.

Facility

Built in 1981 and originally known as the Roundup Centre, the BMO Centre includes 23,000 square metres in five exhibit halls and an additional 1,900 square metres of meeting and event space. In 2009, a \$50 million expansion project was completed.

The Big Four Building opened in 1959 and offers a total of 11,000 square metres of exhibition space among three halls as well as meeting rooms.

The Calgary Stampede has plans to expand the BMO Centre. As a conservative measure, in developing the MFP concept we have assumed only the first phase of the proposed expansion (a new 4,500 square metre exhibit hall, known as Hall F) proceeds.

The Calgary Stampede's full expansion plans include a complete build-out of the BMO Centre, adding 7,300 square metres of conference space. Should the full expansion be completed prior to a 2026 OPWG, the expanded BMO Centre would meet all of the requirements for the IBC and MPC, thereby reducing the cost estimate for the IBC by approximately \$40 million. The Calgary Stampede has advised CBEC that planning, permitting and construction for the full build-out of the BMO Centre would take 60 to 66 months. It is also important to note that the full development of the BMO Centre expansion would result in the demolition of the Stampede Corral and the Boyce Theatre, the implications of which are discussed in [Section 4.2.5](#).


Baseline requirements

Olympic requirements, as defined in the 2024 Host City Operational Requirements and Host City Contract Principles (see *Appendix 4E* and *Appendix 4G*), specify that the two media centres be located close to the hub of Games activity to maximize operating efficiency and reduce infrastructure costs. The IBC requires 43,000 square metres of gross space including 35,000 square metres of high-quality space with a minimum ceiling height of nine metres. This height and space is required to build the necessary broadcast studios and provide space for mechanical and technical systems. Given the nature of broadcast operations, specific sound level management specified noise abatement requirements (35 decibels) have been considered.

The MPC requires a minimum of 20,000 square metres for operation. Although a fully co-located facility with the IBC is preferred, having the two facilities a short walk apart is deemed acceptable. The Boyce Theatre will provide breakout space for daily meetings and press conferences.

Gaps and associated capital costs

CBEC has identified the main gaps relative to Olympic requirements for the BMO Centre and the Big Four Building to be used as the venue for the IBC and MPC. Both facilities are short in qualified space that meets Olympic requirements.



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]


[REDACTED]

The Big Four Building also lacks adequate space for MPC requirements. This shortfall will be addressed with the addition of a temporary structure, the forecast cost of which is included in our operations budget forecast. There is also work required to bring the Big Four Building up to a brighter, quieter lighting solution that does not require a lengthy warm-up period.

The key upgrades required include:

- placing temporary modular infrastructure to add IBC space
- installing a temporary structure to provide additional required MPC space
- upgrading lighting, mechanical and acoustics to conform to noise and lighting requirements
- completing refurbishments to BMO Centre (including Boyce Theatre and Palomino Room) and Big Four Building

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

 Figure 4.6 BMO Centre and Big Four Building – Gaps and Associated Costs

Item	Cost (in '000s)
Technical modifications to BMO Centre halls	\$27,400
Install temporary structure (pre-engineered building)	\$37,671
Technical modifications to Big Four Building halls	\$10,704
Site work for temporary structure	\$2,107
Post-Games reinstatement	\$828
Total	\$78,752

Legacy opportunities

The legacy component of the upgrades to the BMO Centre and Big Four Building is the quieter and more efficient LED lights and the quieter heating and ventilating systems. General refurbishments to both main buildings as well as the Boyce Theatre and Palomino Rooms would also offer long-term benefits.

Engagement

CBEC consulted with the Calgary Stampede executive management team during the venue evaluation process.

Other considerations

The extensive space requirements for the IBC and MPC along with the need for the venue to be in proximity to the sporting venues eliminated other facilities from consideration.

CBEC weighed the option of constructing a large temporary building to meet the overall space requirements. However, the architectural team could not source a single building of sufficient size; therefore, two temporary buildings would be required. These two buildings would take up the majority of the loading dock space behind the BMO Centre and this conflicted with the space needed for the overlay. For this reason, we ruled out this option.

Expert resources

Games Infrastructure Group provided CBEC with expertise on IBC and MPC requirements. During the venue assessment process, these Olympic experts also consulted with the executive team of the Calgary Stampede to establish that the selected venue could meet Olympic requirements and to understand if joint future plans could be found to offer an efficient and cost-effective solution.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: Gibbs Gage Architects
- Structural: Entuitive
- Mechanical: MCW Hemisphere
- Electrical: Designcore Consulting Electrical Engineers
- Cost consultants: Altus Group

The complete information and technical data that informed CBEC's analysis for the BMO Centre and the Big Four Building can be found in the full venue report (see *Appendix 4H*).

4.2.3 STAMPEDE GRANDSTAND VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions the Stampede Grandstand as the entertainment, cultural and artistic hub of the 2026 OPWG. As a centre of celebration, the venue will host the Opening and Closing Ceremonies as well as daily Victory Ceremonies. The venue would provide visitors with the opportunity to enjoy and experience the full gamut of 2026 OPWG events.

Facility

The Stampede Grandstand is the venue for the world-famous annual Calgary Stampede Rodeo, Chuckwagon Races and Grandstand Show. The venue has a total capacity of 17,000 seats; of these, approximately 2,500 seats are not available when the venue is configured for the grandstand show. CBEC proposes installing a temporary stage within the rodeo ring and Chuckwagon track to create a stage approximately the same size as a CFL football field. We propose installing an additional 25,000 temporary seats behind the infield stands and at either end of the infield to create a seating bowl with a total seating capacity of about 40,000. Additional seating to accommodate approximately 10,000 spectators would also be installed around a portion of the chuckwagon track and throughout Stampede Park to expand participation in the ceremony experience. This additional seating will allow more spectators to be able to access an economically- priced in-person Olympic experience at the opening and closing ceremonies. Additional spectating opportunities would include utilization of the new events centre and the Saddledome for ceremony viewing.

Baseline requirements

The opening and closing ceremonies are the most prestigious and popular part of any Olympic Games. Typical attendance includes heads of state from many countries, politicians, dignitaries and famous people from all walks of life. Outfitted with premium seating and private infield suites, the Grandstand provides luxury seating, dining and hosting opportunities for the ceremonies with Ranahans, 30X Saloon and The Lazy S.

The target seating capacity for the ceremonies is a minimum of 40,000 in the main seating bowl, as noted above. As noted in [Section 4.2.1](#) regarding the Stampede Park cluster, ceremonies require robust transport links. Staging the Opening and Closing Ceremonies within Stampede Park will allow the Games to maximize spectator use of the LRT, including both the existing Red Line and the proposed Green Line.

The ceremonies require a minimum of two hectares (approximately five acres) of back of house space to park generators and to house performers, props, staging equipment, broadcast mobiles and other logistics facilities. Olympic advisors engaged by CBEC have assessed this requirement and determined that the area adjacent to the Grandstand provides sufficient space.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for the Stampede Grandstand to be used as a venue for Opening and Closing Ceremonies as well as the Victory Ceremonies and Daily Live Site, which allows the public to view the ceremonies live on large screens. These include:

- adding temporary seating to increase spectator capacity to 40,000
- adding temporary seating around the chuckwagon track for the Athletes' parade
- constructing an elevated stage
- removing the infield roof to facilitate sight lines

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.7 Grandstand - Gaps and Associated Costs

Item	Cost (in '000s)
Seating and infield roof removal	\$18,335
Upgrade existing washrooms to accessibility standards	\$1,000
Elevated stage	\$6,700
Total	\$26,055

Before the Games, additional temporary infrastructure would be installed at the Grandstand, including concessions, washrooms, lighting and electrical and additional temporary seating throughout the Park to expand the capacity for spectator experience. These are not capital improvements and are covered by the Olympic operating budget.

Engagement

CBEC consulted with the Calgary Stampede executive management team during the exploration process to ensure the proposal fit with operational needs and aligned with long-term plans for the Grandstand. The proposed Grandstand changes would not impact the 2025 or 2026 Calgary Stampede events.

Other considerations

Built in 1960, McMahon Stadium has a solid structure and seating capacity of 34,000. The cost for increasing capacity to 40,000 seats and bringing the stadium up to Olympic standards for the various ceremonies is estimated at \$16 million (see *Appendix 4J Detailed Venue Analysis: McMahon Stadium*). While this cost is \$9 million lower than the Grandstand improvement cost, these savings would be offset by higher security costs required at McMahon Stadium as a standalone venue. Furthermore, the Stampede Park cluster offers premium hosting facilities, as well as an opportunity to create a vibrant gathering place that will be affordable and accessible, featuring daily cultural events, sponsor activations and nightly victory ceremonies.

University of Calgary (McMahon Stadium, Olympic Oval) has a lower transportation capacity, with LRT service provided only by the Red Line (see *Appendix 4AA Full Transportation Report*). [REDACTED]

[REDACTED]

[REDACTED]

Expert resources

Games Infrastructure Group undertook the gap analysis that provided the foundation for the work of the architectural and engineering team.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: Dialog Design
- Structural: Entuitive Corporation
- Mechanical: MCW Engineering

■ Electrical: Design Core Consulting Electrical Engineers

■ Cost consultants: Altus Group

The complete information and technical data that informed CBEC's analysis for the Grandstand can be found in the full venue report (see *Appendix 4I*).

4.2.4 HOCKEY 1 VENUE OVERVIEW

Proposed use

In the development of the MFP concept, CBEC established a set of foundational assumptions, including a new $\pm 18,000$ seat arena/events centre to be built and fully operational in the Rivers District prior to 2026. The Hockey 1 venue is used for men's and women's hockey games that are projected to draw enough spectators to substantially fill a large venue.

The Olympic Winter Games requires two large arenas in the host city, one to host Hockey 1 and another to host Figure Skating and Short Track Speed Skating (the latter requiring an Olympic-sized ice surface). If the new Calgary Sports and Entertainment venue is not confirmed prior to the bid deadline in late 2018, the bid may be non-compliant with IOC requirements. Locating Hockey 1 or Figure Skating in another city is not a viable solution, firstly because hockey teams will play in both Hockey 1 and Hockey 2 venues and all teams should experience equivalent conditions for travel, practices and games. Secondly, Hockey 1 and Figure Skating are two of the most important sports from a sponsor and broadcast hospitality perspective. Many sponsor programs will include attendance at both venues on a single day and eliminating either one of these key sports will be problematic.

Facility

The proposed New Event Centre is expected to be a state-of-the-art sports and entertainment arena with $\pm 18,000$ spectator seats, including premier seating and a diverse range of top-quality concessions. If it proceeds, the New Event Centre would be the new home for the National Hockey League's Calgary Flames, the Western Hockey League's Calgary Hitmen and the National Lacrosse League's Calgary Roughnecks and will function in a similar manner to the Scotiabank Saddledome.

Baseline requirements

The Hockey 1 venue has a target minimum seating capacity of 15,000. All tiers would offer accessible seating and barrier-free washrooms to meet Olympic and Paralympic accessibility requirements as well as City of Calgary Access Design Standards.

Ideally, all hockey venues would have Olympic-sized ice to conform to International Ice Hockey Federation (IIHF) requirements. However, pursuant to the IOC's Olympic Agenda 2020 roadmap, this is no longer a firm requirement. Based on this relaxation, CBEC recommends that the Hockey 1 and Hockey 2 venues be constructed with NHL- sized ice rather than a surface convertible to an Olympic ice surface. This would allow for permanent seating in the first 10 rows where the ticket prices are highest. Arenas with convertible ice surfaces have retractable seating in the first 10 rows that are generally poorer quality and less stable than permanent seats. CBEC learned that the Scotiabank Saddledome was only converted to Olympic-sized ice once in the past 34 years and that was for the 1988 Games.

Gaps and associated capital costs

All requirements for Hockey 1 will be designed into the construction of the new venue. The cost of the New Event Centre is unknown to CBEC and because the event centre is being built for a purpose other than the Games, it is not considered part of the Olympic capital budget. The facility would be rented for the duration of the Games, inclusive of the time required to install the overlay and for use as a competition venue.

Legacy opportunities

Our concept requires that a new event centre be constructed prior to the OPWG 2026. Furthermore, we believe such a venue would serve to make Calgary competitive for hosting a number of sport and non-sport events.

Engagement

CBEC consulted with Hockey Canada, Calgary Sports and Entertainment Corporation and the City of Calgary during the venue evaluation process.

Other considerations

There are no other viable options for the Hockey 1 venue.

4.2.5 HOCKEY 2 VENUE OVERVIEW

Proposed use

CBEC envisions hosting the Hockey 2 events at the Stampede Corral located in the Stampede Park cluster. Hockey 2 is the venue for men's and women's games that are not played in the Hockey 1 venue. This arena will also host Para Ice Hockey for the Paralympic Games.

Facility


Built in 1950 and renovated in 1980, the Stampede Corral is a 6,500-seat ice hockey arena. At 67 years old, the Calgary Stampede considers the facility to be nearing the end of its useful life and plans to demolish the building as part of the proposed expansion plans for the BMO Centre. CBEC considered it prudent to pursue a proposal that minimizes investments in the aging facility.

Baseline requirements

The Hockey 2 venue must have the same ice size as the Hockey 1 venue along with NHL-approved dasher boards. Para Ice Hockey requires specially designed player's benches and penalty boxes with ice floors to accommodate the hockey sledges along with boards with a clear insert to allow players to view the ice surface. In addition, there must be barrier-free access to accessible change rooms.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for the Stampede Corral to be used as the venue for Hockey and Para Ice Hockey. The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.


 Figure 4.8 Hockey 2 - Gaps and Associated Costs

Item	Cost (in '000s)
Refrigerated rink slab and infill slab replacement	\$2,126
Dasher boards, netting and accessories	\$700
Replace wood bleachers and lower-level bleachers	\$481
New locker rooms located under plus-15	\$5,117
Rebuild existing north locker room	\$1,176
Replace fascia	\$68
Ice plant renovations and under-slab piping	\$1,050
Replace plumbing fixtures, hot water heaters and sanitary	\$536
Upgrade sprinklers	\$68
Renovate HVAC and controls	\$534
Electrical upgrades	\$3,500
Replace fire alarms	\$389
Replace east washrooms	\$1,010
Barrier-free washrooms and elevator	\$798
Broadcast requirements	\$368
Structural for large-screen television and cosmetics	\$656
Renovate ice re-surfacer room	\$137
Total	\$18,884

Legacy opportunities

Based on the assumption that the venue would be demolished soon after the Games, the Master Facilities Plan proposes pursuing only those improvements required to meet OPWG requirements. If the venue remained in operation after the Games, the new and safer ice surface, new locker rooms and accessibility upgrades may offer a benefit to the venue operator. However, as noted above, CBEC recognizes that the Calgary Stampede expansion plans require the demolition of the Corral to proceed with the full build out of the BMO Centre.

Engagement

We consulted with the executive team of the Calgary Stampede regarding the venue selection and proposed expansion plans.

Other considerations

As noted in [Section 4.2.2](#), we have assumed only the first phase of the proposed BMO Centre expansion at Stampede Park (a new 4,500 square metre exhibit hall, known as Hall F) proceeds. Should the full expansion of the BMO Centre proceed in advance of a 2026 OPWG, the Stampede Corral would be demolished, and thus eliminated it as a Games venue.

CBEC explored the idea of constructing an additional new 5,000-seat arena on Stampede Park at a forecast cost of \$48 million to \$63 million. As noted in *Appendix 4K Detailed Venue Analysis: Stampede Corral*, the presence of two event centres (arenas) co-located at Stampede Park would offer symbiotic opportunities and other operational efficiencies during the Games and beyond.

Used as a facility for sport, cultural and other events considered too small for a major event centre, a 5,000-seat event centre at Stampede Park could be well-used by recreational enthusiasts and a wide cross-section of Calgarians for a range of event programming. It would also be built to the LEED® Gold standard, minimizing its environmental footprint.

A new 5,000-seat arena, in combination with a larger event centre, would increase Calgary's ability to host different concurrent events. This is common in major centres and Tourism Calgary advises that offering facilities with different capacities increases Calgary's ability to bid for and stage national and international events, including concerts, cultural and special events.

CBEC also considered using the proposed Foothills Fieldhouse as the Hockey 2 venue and the Stampede Corral as a Curling and Wheelchair Curling venue. Curling requires less substantial modifications compared with Hockey. Smaller change room requirements for curling and no renovation of the infill slab reduces the estimated capital costs of the Corral by approximately \$9 million. However, higher operating costs and the difficult logistics of separating Hockey 1 and Hockey 2 counterbalance the capital cost savings. Dedicated team locker rooms are located at Stampede Park and therefore it would be necessary to bus fully dressed teams to the Fieldhouse for each game.

CBEC also considered the Markin MacPhail Centre as a potential venue for Hockey 2. However, we ultimately chose to

utilize it as otherwise indicated in this report, primarily due to the projected strain on Canada Olympic Park, which would already be hosting over 30 competition events (see [section 4.2.17: Training Venues](#)). CBEC also flagged capacity and transportation as concerns. The Markin MacPhail Centre has 40 percent less seating than the Corral, which negatively impacts ticket revenue. The total transportation capacity of WinSport would be a constraining factor that could affect not only the number of Hockey spectators but also the 30 other events taking place at WinSport.

If the Stampede Corral was not used for Hockey and Para Ice Hockey, it could provide needed space for the International Broadcast Centre at BMO Centre, thereby reducing the need for construction of temporary facilities.

Expert resources

CBEC contracted Games Infrastructure Group and its team of Olympic infrastructure experts to provide expertise regarding selection of the hockey 2 venue. The architectural/engineering team responsible for analysis of the venue included:

- Lead: Gibbs Gage Architects
- Structural: Read Jones Christoffersen (RJC)
- Mechanical: Remedy Engineering
- Electrical: SMP Engineering
- Refrigeration: Thermocarb
- Cost Consultants: BTY

The complete information and technical data that informed CBEC's analysis for the Stampede Corral and 5,000-seat arena can be found in the full venue report (see [Appendix 4K](#)). The venue brief for the New Event Centre is included in [Appendix 4L](#).

4.2.6 SADDLEDOME VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions using the Saddledome as a competition venue, hosting all Figure Skating and Short Track Speed Skating events. In recent years – and again in PyeongChang in 2018 -- it has become standard practice to co-locate these competitions in a common arena. The two sports have co-operated to dovetail competition and practice schedules, thereby utilizing the full scheduling potential of the venue. CBEC's Olympic advisors recommend that these sports remain together for the 2026 OWPG to maximize efficiencies.

Facility

Built in 1983, the Scotiabank Saddledome became the new home for the Calgary Flames and was the venue for Hockey and Figure Skating during the 1988 Games. Today the Saddledome is home not only to the Calgary Flames but also the Western Hockey League's Calgary Hitmen and National Lacrosse League's Calgary Roughnecks. The venue has hosted numerous concerts and exhibitions as well as major sporting events, including the Brier men's curling championship and the Canadian Figure Skating Championships.

In 1995, the Saddledome underwent a renovation. Damage caused by the 2013 flood necessitated replacement of the seats, ice plant and locker rooms as well as the mechanical and electrical systems that were below water.

The Saddledome's seating capacity is 19,289 and there are sufficient concession spaces. Accessible seating and public washrooms are available. The slab is designed to be convertible to Olympic-sized ice required for Short Track Speed Skating.

Baseline requirements

Figure Skating is an extremely popular spectator sport at the Winter Games and requires a venue with a minimum target capacity of 15,000 spectators. Although Figure Skating competitions can take place on NHL-size ice, safety requirements dictate use of the larger Olympic ice surface for Short Track Speed Skating. These two sports have shared the same arena at Olympic Winter Games since the 1998 Nagano Olympics.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for the Saddledome to be used as a venue for Figure Skating and Short Track Speed Skating. These include:

- modifying seats and dasher boards to accommodate the larger Olympic/International size ice surface
- upgrading washrooms and access to meet accessibility standards
- upgrading mechanical and electric systems to increase reliability
- recommissioning ice plant, HVAC and electrical

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.9 Saddledome - Gaps and Associated Costs

Item	Cost (in '000s)
Remove first six rows of seats, add guardrails	\$2,080
General refurbishments	\$2,007
Convert washrooms	\$493
Allowance for accessible seating	\$89
Recommission plant	\$958
Remove boards, expand ice	\$456
Electrical upgrades	\$1,437
Operation costs for 3 years while decommissioned	\$2,002
Total	\$9,520

Note that the above costs do not include provision for returning the Saddledome to NHL-sized ice after the Games.

Legacy opportunities

The proposed investments would refresh the facility and provide minor upgrades.

Engagement

CBEC engaged with Skate Canada and Speed Skating Canada for their input on sport-specific requirements and to ensure that the facility will meet their requirements

Other considerations

The Saddledome is the only venue in Calgary that meets the requirements for a minimum target capacity of 15,000 and Olympic-sized ice. Of note, all recently-built NHL arenas are not built to be convertible.

Four other Calgary facilities offer Olympic-size ice surfaces: the Max Bell Centre, the Father David Bauer Olympic Arena, Flames Community Arenas and the Markin MacPhail Centre. However, none of these arenas has more than 4,000 seats and therefore cannot support the high volume of spectators that these competitions attract.

Similarly, the Stampede Corral could be retrofitted to Olympic-sized ice, but the seating capacity of 6,500 is still inadequate for Figure Skating.

Expert resources

We consulted with Games Infrastructure Group and its team of Olympic infrastructure experts to provide expertise regarding venue selection.

The engineering team responsible for analysis of the venue included:

- Lead: Brisbin Brook Beynon Architects and DIALOG

- Structural: Entuitive

■ Mechanical/Electrical: DIALOG Engineering

■ Cost Consultants: Stuart Olson

The complete information and technical data that informed CBEC's analysis for the Saddledome can be found in the full venue report (see *Appendix 4M*).

4.2.7 OLYMPIC OVAL VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions that the Olympic Oval at the University of Calgary will once again host the complete roster of Long Track Speed Skating events.

Facility

The Olympic Oval was built on the campus of the University of Calgary in 1986 to host the speed skating events for the 1988 Olympic Winter Games. The 400-metre track is used for all long track events. Several world records have been set at the Olympic Oval thanks in part to a very even slab, water treatment, good humidity control and a reasonably high elevation. The legacy at the Oval continues to this day with the venue hosting World Cup events and the World Sprint Speed Skating Championships.

Baseline requirements

With a maximum seating capacity of 3,700 when temporary seating is included, the Olympic Oval's capacity is below our targeted capacity of 6,000. Upgrades to increase capacity even by 1,000 seats is prohibitively expensive due to the facility's roof design. The IOC's Olympic Agenda 2020 is supportive of utilizing venues with capacity constraints where the venues otherwise represent a viable facility in the community and no further changes are proposed.

Long track speed skating requires that the 400-metre ice surface be very flat and even with a strong ice plant for technically compliant ice, and humidity controlled to below 35 per cent. The spectator viewing areas and washrooms

must be accessible. Ice surface access is not an accessibility concern for the 2026 OPWG as sledge racing is not expected to be included in the event roster.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for the Olympic Oval to be used as the Long Track Speed Skating venue.

Although the Olympic Oval hosts frequent World Cup and Sprint events, there is risk that by 2026 the ice plant and refrigerated slabs will require replacement. The refrigeration network within the Oval slabs has experienced leaks in two locations and some of the refrigerant loops experienced clogs. The ice plant uses brine as a heat transfer medium; more modern systems use non-corrosive glycol. CBEC has included in its forecast the replacement of the ice plant and slabs before the 2026 OPWG to account for the risk that the slabs will need to be replaced prior to 2026. Replacing these systems will allow changes to the track geometry, which in turn will resolve a known safety concern with the practice lane.

Construction of a new, wider access tunnel will be undertaken during the slab replacement. The tunnel will provide much-needed additional access to the ice surface. The athlete support spaces in the Olympic Oval are also in need of renovation. The proposed upgrade plan includes costs for this work to be completed within the existing footprint. In addition, the electrical distribution system is undersized and will be expanded as part of these upgrades.

The key upgrades include:

- upgrading ice plant for reliable service
- upgrading the refrigerated slabs for reliable service
- upgrading the HVAC and de-humidification systems

- expanding access tunnel
- refurbishing spectator entry
- adding accessible seating
- refurbishing and upgrading washrooms to meet accessibility standards
- renovating change rooms
- refurbishing washrooms
- increasing roof loading capacities
- improving lighting and electrical capacity
- extending water and sanitary load capacities
- enlarging exits

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.10 Olympic Oval – Gaps and Associated Costs

Item	Cost (in '000s)
Ice plant	\$6,739
All slab replacements	\$11,008
Refurbish plumbing	\$782
Replace HVAC controls	\$6,739
Refurbish main entry	\$1,502
New access tunnel	\$982
Enlarge exits	\$330
Renovate change rooms and athlete support area	\$12,033
Refurbish concourse washrooms	\$792
Add lighting truss to ceiling	\$165
Sprinklers	\$130
Electrical and lighting upgrades	\$5,920
Acoustic treatment	\$1,073
Athletic field restoration	\$2,000
Total	\$50,203

Legacy opportunities

The facility revitalization proposed for the Olympic Oval in the Master Facilities Plan would provide significant legacy benefits for recreational, university and elite athletes. These improvements align with the venue's long-term development plans and would solidify its place as a premier training and competition venue. Specific legacies include:

- upgraded ice plant and associated HVAC and humidity controls
- addition of access tunnel
- increased accessibility of seating and washrooms
- aesthetic improvements

Engagement

CBEC engaged with the University of Calgary, Olympic Oval management and Speed Skating Canada during the exploration process. The organizations support the proposed use of the Olympic Oval as the speed skating venue for the 2026 OPWG and see completion of the necessary Olympic upgrades as a valuable benefit that will ensure the facility's long-term viability as a world-class training and competition venue.

Other considerations

The Olympic Oval was purpose-built for long track speed skating, is utilized daily by recreational enthusiasts and often hosts World Cup competitions. The only other indoor oval in Canada is in Fort St. John, BC and is not designed to host an Olympic Games.

Expert resources

The architectural/engineering team responsible for analysis of the venue included:

- Lead: GEC Architecture
- Structural: Read Jones Christoffersen
- Mechanical: Remedy Engineering
- Electrical: SMP Engineering
- Refrigeration: Thermocarb
- Civil: Urban Systems
- Cost consultants: BTY

The complete information and technical data that informed CBEC's analysis for the Olympic Oval can be found in the full venue report (see *Appendix 4N*).

4.2.8 FOOTHILLS FIELDHOUSE VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions using the proposed Foothills Fieldhouse for all Curling and Wheelchair Curling events as part of our prospective concept for the 2026 OPWG.

The Curling and Wheelchair Curling venue is one of the most intensely used, with scheduled competition beginning prior to the Opening Ceremonies. The curling venue is used for as many as three full rounds of Curling daily. In PyeongChang 2018, there are 43 able-bodied Curling events scheduled over 18 days, with Wheelchair Curling expected to take place on eight days during the Winter Paralympics. For this reason, the Foothills Fieldhouse would be dedicated solely to Curling and Wheelchair Curling.

Facility

The Foothills Fieldhouse is part of the City of Calgary's proposed plans to construct a multi-purpose fieldhouse at the Foothills Athletic Park. The Fieldhouse would provide the first covered track and field venue in the city as well as field and/or court space for soccer, football, basketball, volleyball and other sports. The City has identified the redevelopment of Foothills Athletic Park in its strategic plans.

To modify the venue for Curling and Wheelchair Curling during the 2026 OPWG, the MFP proposes installing a permanent refrigerated slab in the initial phase of Fieldhouse construction. All Olympic venues must be tested in competition mode before the Games to prove function and performance. It is more cost-effective to install a permanent slab than installing a temporary refrigerated slab on two different occasions.

Baseline requirements

Curling requires four sheets of ice, HVAC with humidity control and a suggested minimum target seating capacity of 4,000. CBEC recommends a seating capacity of approximately 9,000 for the curling venue. This capacity reflects the

popularity of curling in Canada and offers an opportunity to generate additional support for the sport as well as ticket revenue for the Games.

The venue must offer 20 change rooms, with each accommodating six people. Wheelchair Curling also requires barrier-free access to both the ice surface and change rooms.

Gaps and associated capital costs

The proposed Fieldhouse offers a huge building envelope, with temporary seating for 2,500 spectators. However, this seating is designed for track and field and is not suitable for Curling and Wheelchair Curling in the OPWG. CBEC proposes the installation of four sheets of ice with seating for 9,000 spectators around all sides. The washroom facilities will be barrier-free and lighting brought up to broadcast standards. This configuration would leave half of the Fieldhouse open for back of house space. Based on the preliminary design drawings, our team determined that structural upgrades are necessary to thicken the slab and hang the lighting.

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.11 Foothills Fieldhouse – Gaps and Associated Costs

Item	Cost (in '000s)
Structural upgrades	\$1,927
Ice plant	\$1,423
Electric, fibre, mechanical upgrades	\$10,224
Temporary seating (9,000)	\$2,286
Track protection and refrigeration	\$1,715
Total	\$17,505

Facility conversion costs are covered in the overlay portion of the operating budget.

Legacy opportunities

By installing a permanent refrigerated slab, the facility could be used in the future for other ice events. The thicker slab will support the bleachers and upgrades to the electrical service and fibre optic communications will provide redundancy and reliability. However, CBEC recognizes the importance of post-Games conversion of the facility to its original and intended purpose of providing covered court space for track and field, soccer, basketball, volleyball, football and other sports.

Engagement

CBEC consulted with Sport Calgary, the City of Calgary and Curling Canada in its consideration of the utilization and conversion of a potential multi-sport fieldhouse.

Other considerations

CBEC considered staging Curling and Wheelchair Curling at the Stampede Corral (a smaller venue with 6,500 seats) and using the Fieldhouse for Hockey 2. This approach would reduce capital expenditures, but these savings would be counterbalanced by an increase in operations and logistics costs. Hockey teams playing at the Fieldhouse would have to prepare for the game at the dedicated locker rooms located at the Hockey 1 venue at Stampede Park and then be transported by bus to the Foothills Fieldhouse.

Expert resources

CBEC contracted Games Infrastructure Group and its team of Olympic infrastructure experts to provide expertise regarding selection of the venue.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: S2 Architecture
- Structural: Read Jones Christoffersen (RJC)

- Mechanical: Remedy Engineering
- Civil: Watt Consulting Group
- Electrical: SMP Engineering
- Refrigeration: Thermocarb
- Cost Consultants: BTY

The complete information and technical data that informed CBEC's analysis for the proposed Foothills Fieldhouse can be found in the full venue report (see *Appendix 4O*).

4.2.9 WINSPORT CLUSTER VENUE OVERVIEW

Background

The area now occupied by WinSport's Canada Olympic Park (COP) was first developed in the early 1960s as a privately-owned and operated facility known as Paskapoo Ski Centre. After Calgary was selected as the site for the 1988 Winter Games, the facility was purchased by the federal government and developed as the venue for ski jumping, Nordic combined, luge, bobsleigh and freestyle demonstration events. The colourful stories of Eddie the Eagle and the Jamaican bobsled team anchor the memories of the events at COP during the 1988 Games for many Calgarians.

Fast-forward to today and the facilities owned and operated by WinSport continue the Olympic legacy with a wide variety of winter and summer sport opportunities for both high-performance and recreational athletes and expanded and upgraded facilities.

To take full advantage of WinSport's sliding track, ski and snowboard facilities and its host of training facilities and amenities, the Master Facilities Plan envisions clustering all of the sliding events (Bobsleigh, Luge and Skeleton) and seven Snowboard and Freestyle events at the WinSport venue. If Para Bobsleigh is included in the 2026 Paralympics,

it would be added to the venue's roster. Maximizing use of Canada Olympic Park offers a number of advantages, including:

- reduced security costs
- increased operational and logistical efficiencies
- availability of public transit
- on-site training facilities

Security and operating benefits of a venue cluster are set out in [Section 4.2.1](#) on the Stampede Park cluster.

Transportation

Located on the western edge of Calgary, WinSport is conveniently located in respect to the options proposed for the city Athletes' Village, the International Broadcast Centre and Main Press Centre, which are all 20 minutes away.

Served by city bus services linked to the LRT, public transit options are capable of moving thousands of people in and out of WinSport each day during major events. Leveraging public transit will make the events more accessible to urban spectators while also supporting local and Olympic sustainability guidelines.

A new west-side road access point development will streamline traffic circulation by enabling multiple entry points for accredited and spectator buses and a future linkage to the West Calgary Ring Road expansion. Transit will be further enhanced by the completion of Stoney Trail.

Training

The on-site training facilities available at the WinSport facility will also support the athletes competing at the venue. These include the public fitness centre, high-performance training centre, sliding sports training centre and other fitness and recreational facilities.

The ice surfaces at WinSport will host the Olympic and Paralympic hockey training and the Olympic short track speed skating training.

4.2.10 WINSPORT (SLIDING SPORTS) VENUE OVERVIEW

Proposed use

CBEC proposes using WinSport as the venue for the three sliding sport events: Bobsleigh, Luge and Skeleton. The venue would also be used for Para Bobsleigh if it is included in future Paralympic Winter Games.

Facility

The WinSport sliding track was purpose-built in 1986 for the 1988 Winter Games. A \$20 million upgrade of the WinSport sliding track is moving forward as part of the facility's development plans. This project includes replacement of the refrigeration system and consolidating starts for operational purposes. The improvements will reinforce the facility's reputation as a world-class facility worthy of World Cup events and high-level training.

Baseline requirements

The venue meets all International Competition Rules for the selected sports.

Gaps and associated capital costs

In addition to WinSport's aforementioned facility development plans for operational purposes, CBEC has identified the main gaps that would need to be addressed for WinSport to be used as the venue for the sliding sports events during the 2026 OPWG. These include:

- upgrading track to provide competitive speed, challenge and a modified turn radius
- preparing (grading) base area to meet the Olympic overlay requirements
- upgrading utilities

- building upgrades, including start houses

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.12 WinSport (Sliding Sports) – Gaps and Associated Costs

Item	Cost (in '000s)
Facilities (start and other buildings)	\$5,692
Track upgrades	\$9,923
Infrastructure (lighting, piping, maintenance)	\$4,060
Total	\$19,675

The cost estimate above does not reflect WinSport's \$20 million track upgrade forecast to be undertaken in 2017 and 2018. That upgrade provides new refrigeration, track re- alignment, track repairs and sun shading.

Legacy opportunities

The facility upgrades envisioned by the proposal for WinSport would provide legacy benefits, supporting high-performance athletes and ensuring the facility is maintained at a world-class level so that it can continue to host international and national events. The Master Facilities Plan improvements are aligned with the long-term development plans for the venue.

The proposed venue improvements would facilitate hosting for additional World Cup events leading up to and following 2026 as well as test events in the season prior to the 2026 OPWG.

Engagement

During the exploration process, we consulted with relevant sliding sport organizations to ensure a precise understanding of technical requirements and challenges. Over the course of the project, we engaged with Bobsleigh Skeleton Canada, Luge Canada and Ski Jumping Canada. We also consulted closely with WinSport, the venue operator.

Other considerations

This is the only venue option in the area for these sports.

Expert resources

CBEC contracted experts with specific expertise in Olympic fit and overlay as well as Olympic transportation experts and international sport event experts, including IBG + Partner (International Bobsleigh Group).

The architectural/engineering team responsible for analysis of the venue included:

- Lead: Stantec Architecture Ltd.
- Structural: Entuitive Corporation
- Mechanical: Remedy Engineering
- Electrical: SMP Engineering
- Refrigeration: Thermocarb
- Civil: Watt Consulting
- Cost consultants: Axiom / Altus Group



4.2.11 WINSPORT (SNOW SPORTS) VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions using WinSport as the venue for these snow sport events:

- Aerials (Freestyle)
- Big Air (Snowboard)
- Halfpipe (Snowboard)
- Halfpipe Ski (Freestyle)
- Moguls (Freestyle)
- Slopestyle (Snowboard)
- Slopestyle Ski (Freestyle)

Facility

The snow sports facilities at WinSport include the largest halfpipe in Western Canada. It needs to be upgraded to match Olympic standards by increasing the length by 25 metres and the degree of slope by two degrees, resulting in a 165-metre long “Super Pipe.” The freestyle moguls and aerials courses were constructed in 2006 and are well-regarded. The venue hosts national and international events in these disciplines.

Baseline requirements

The venue meets all FIS International Competition Rules for the selected sports. International Ski Federation representatives confirmed that they would prefer a more challenging Olympic slopestyle course and we have

Recommended funding to increase the slopestyle vertical drop and length and to adjust the course layout.

The required on-site training and warm-up facilities are available at the facility.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for WinSport to be used as the venue for the snow sports events during the 2026 OPWG. These include:

- preparing (grading) base area to meet the Olympic overlay requirements
- increasing vertical drop for Slopestyle
- aligning and grading mogul course
- developing site for Big Air and Aerials
- aligning, grading and adjusting length of halfpipe
- upgrading utilities
- upgrading and refurbishing day lodge
- transportation access upgrades

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

 Figure 4.13 WinSport (Snow Sports) - Gaps and Associated Costs

Item	Cost (in '000s)
Base area development	\$5,693
Utilities	\$2,522
Facilities (day lodge)	\$16,373
Sport terrain grading	\$4,839
Slopestyle vertical drop	\$5,693
Infrastructure (lighting and communications)	\$1,871
Service road (top)	\$1,464
Park west access road	\$2,880
Urban x-country / biathlon legacy trails	\$1,345
Total	\$42,680

Legacy opportunities

The Master Facilities Plan improvements are aligned with the long-term development plans for the venue and the specific work outlined above will produce a long-term legacy. These upgrades will support both recreational and high-performance athletes and ensure the facility is maintained at a world-class level so that it can continue to host international and national events. These sports are very popular with young people and have a high participation rate. Having these upgraded facilities in proximity to a large urban centre supports the viability of a sport developmental legacy. In addition, the proposed venue improvements would facilitate hosting for additional World Cup events leading up to and following 2026 as well as test events in the season prior.

Engagement

We consulted with numerous sport organizations and experts, including Freestyle Canada, Canada Snowboard, Ski Jumping Canada and the FIS Freestyle Delegates as well as leadership of the Freestyle World Cup and Snowboard World Cup event leadership. We also consulted with the senior executive team at WinSport.

Other considerations

During our exploration and analysis, CBEC considered other options for hosting these events. Firstly, we considered hosting some of the Freestyle and Snowboard events at Nakiska. However, the FIS observed that these sports are best suited to an urban environment and culture and urged us to cluster these short-course snow events at WinSport. In addition, hosting all the events together at one venue creates operational efficiencies. CBEC was also concerned that adding these events would have overloaded the Nakiska venue with too many events.

Another possibility we investigated was hosting Big Air at McMahon Stadium or Stampede Park but the integration of the competition into Opening or Closing Ceremonies significantly limited the flexibility of the ceremonies and having Big Air as a standalone venue would result in operational inefficiencies, incremental security costs and no legacy value.

Expert resources

The architectural/engineering team responsible for analysis of the venue included: Lead: Stantec Architecture Ltd.

- Structural: Entuitive Corporation
- Mechanical: Remedy Engineering
- Electrical: SMP Engineering
- Refrigeration: Thermocarb
- Civil: Watt Consulting
- Cost consultants: Axiom / Altus Group

4.2.12 SKI JUMPING AND NORDIC COMBINED VENUE OPTIONS OVERVIEW

Proposed use

The CBEC Master Facilities Plan contemplates a scenario for hosting the Ski Jumping and Nordic Combined events at either WinSport or Whistler Olympic Park. At this time, CBEC has not provided a recommended venue option. Both venues offer unique advantages and challenges that differ in their contribution to a potential Olympic and Paralympic Winter Games hosting strategy. Due to complexities surrounding the relative value of these attributes, the depth of each venue's unique opportunities and challenges, as well as time constraints on the process, we have not prioritized one facility as "best representative" at this time. CBEC has concluded that additional due diligence be undertaken to finalize a representative concept. A high-level review of CBEC's preliminary findings are presented below.

Facility

WinSport currently has training facilities for Ski Jumping and Nordic Combined athletes. Five ski jumps were constructed in 1986 for the 1988 Winter Games Ski Jumping events. Three small-scale training jumps at WinSport are still in use today. The largest of the ski jump towers (K114) has not been operational since the mid-1990s. At the 1988 Games, the Ski Jumping component of Nordic Combined was also hosted at WinSport's Canada Olympic Park.

Completed in 2008, Whistler Olympic Park was purpose-built for the Vancouver 2010 Winter Olympics as the venue for the Ski Jumping and Nordic Combined events. The venue is located in the Callaghan Valley, 16 kilometres southwest of Whistler, 45 minutes north of Squamish and 115 kilometres north of Vancouver. With internationally sanctioned 106-metre and 140-metre ski jumps, the facility is a designated National Training Centre for Ski Jumping and Nordic Combined.

Baseline requirements

When they were constructed, the ski jumps and landing area at WinSport were state-of-the-art and met the International Competition Rules (ICR) for Ski Jumping and Nordic Combined. However, as the sport has evolved, the ICR standards have changed, necessitating significant upgrades. The specific upgrades and associated costs are outlined in more detail below.

Nordic Combined competition events include a ski jumping component immediately followed by a cross-country skiing component. WinSport no longer has dedicated cross-country ski terrain, although suitable temporary terrain can be developed nearby. Alternatively, the cross-country ski portion of the event could potentially be held at the Canmore Nordic Centre. Because of the distance between venues, the latter option would require sport approvals.

From a field of play perspective, Whistler Olympic Park meets all ICR requirements. However, there are identified gaps that should be addressed at the facility if considered as a venue for a 2026 Games, including modifying the Cross-Country Ski course to utilize the Ski Jumping stadium as a start/finish area. As detailed below, other logistical, operational and cost implications also require further consideration.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for WinSport to be used as the venue for the Ski Jumping and Nordic Combined events during the 2026 OPWG. These include:

- modifying and upgrading in-run slope profile
- widening, re-profiling and grading the landing slope
- re-aligning the mogul course and developing a corresponding Big Air and Aerials site
- adding cross-country ski trails and snowmaking for Nordic Combined
- structural repairs and renovations on the Jump tower and coaches' platforms, and judges' building
- preparing base area for multi-sport stadium and to meet Olympic overlay requirements
- removing and replacing ski lift

- installing refrigeration
- implementing wind mitigation system
- upgrading utilities, snow retention, and aligning snowmaking

CBEC has also identified the main gaps to be addressed before the Whistler Olympic Park could be used as the venue for the Ski Jumping and Nordic Combined events during the 2026 OPWG.

These include:

- augmenting Nordic Combined trails to align with the Ski Jumping stadium
- expanding training and development facilities, including summer use capabilities and the possible addition of a new intermediate training jump
- upgrading utilities, including electrical, lighting and fibre optic capacity
- undertaking selected physical plant upgrades or additions, such as refrigeration of the in-run

For the purposes of this report and to maintain a conservative fiscal position, CBEC has elected to present the higher projected capital costs for the WinSport Ski Jumping scenario (including design, engineering and construction management) that address the identified gaps. The projected costs to utilize the Whistler Olympic Park include an estimated \$5 million in capital costs and an estimated \$30 million in operational and ancillary costs. Other government services and related expenditures for intergovernmental co-ordination have not been contemplated at this time.

Figure 4.14 WinSport (Ski Jumping and Nordic Combined) - Gaps and Associated Costs

Item	Cost (in '000s)
In-run slope profile upgrade	\$6,580
Base area prep for Olympic overlay	\$2,829
Base area prep for multi-sport stadium	\$7,073
Utilities service upgrade	\$1,273
Tower structural repairs / renovations	\$2,829
Landing slope widening and re-profiling / grading	\$9,902
Refrigeration installation	\$2,122
Snow retention	\$707
Wind mitigation system	\$7,073
Ski lift removal and replacement	\$3,100
Snowmaking alignment	\$1,850
Judges' building repairs and renos	\$2,122
Coaches' platforms rebuild	\$1,415
Mogul course re-alignment	\$3,200
Big Air site development with Aerials	\$3,000
Nordic Combined Cross-country Trails	\$2,829
Trails snowmaking / equipment	\$2,829
Re-grade outrun to facilitate ski/snowboard cross	\$5,000
Post-event demolition (ski jump in-runs, non-legacy items)	\$5,000
Total	\$70,733

Legacy opportunities

Considerations for legacy opportunities at either venue may include an investment into bricks and mortar facilities or infrastructure, programs for sport development and/or enhancing the economic sustainability of sport or facility. However, CBEC has concluded that further due diligence is required to identify and validate projected legacy opportunities for either facility scenario.

Engagement

In addition to consultation with the Executive Team at WinSport, the Whistler Legacy Society, the Town of Whistler and the Whistler National Training Centre, we engaged with numerous sport organizations and experts, including

Snow Sports Canada, Ski Jumping Canada, Nordic Combined Canada, Freestyle Canada, Canada Snowboard and the FIS Freestyle Delegation as well as leadership of the Freestyle and World Cup events.

Other considerations

In evaluating Ski Jumping and Nordic Combined, CBEC identified a number of items and implications that require further consideration, due diligence and/or strategies of mitigation prior to establishing a representative venue for the MFP concept, including:

Ski Jumping facilities

- Further consideration is required to validate a model for operational viability and sustainability of ski jump facilities, both in general and for the specific facilities.

- Current and projected athlete participation in the sport should be evaluated through additional analysis to establish long-term and legacy use of the facilities.

- Recommendation 2.2 of the IOC's Olympic Agenda 2020 (see *Appendix 4B*) promotes "the maximum use of existing facilities...where no long-term venue legacy need exists or can be justified." This key element of reform should be further assessed relative to each facility before concluding the representative venue for the MFP concept.

WinSport

- WinSport offers an opportunity to create a complete Calgary and Bow Valley Corridor-based OPWG hosting strategy. Although more operationally complex, and at a higher projected cost, CBEC recognizes this is an important consideration.

- Prevailing wind potential at WinSport creates risk factors for Ski Jumping, as evidenced by the 1988 Games experience.

With a full event schedule that would have the venue hosting several Freestyle events -- including Aerials, Moguls and Snowboard Big Air -- in addition to Ski Jumping, there is a risk that adverse weather conditions could force events to be postponed or cancelled.

The MFP envisions using the WinSport jump site for several Freestyle events, including Aerials, Moguls and Big Air. If Ski Jumping and Nordic Combined were added to the event roster at WinSport, incremental work to fit a multi-sport stadium for Ski Jumping, Nordic Combined, Freestyle and Snowboard is required. Hosting the Freestyle events at Nakiska might also be a consideration, but this requires further analysis to prove staging validity, including limits to Nakiska's hosting capacity, sport preferences and needs of the International Federation and other parties.

Hosting all of these events at WinSport may also have an impact on the event schedule, transportation plan and City Athletes' Village, as well as the overall capacity for spectators at the WinSport cluster.

Confirmation of the venue operator's long-term strategic plans is also required to further validate alignment and synergy of the proposed upgrades.

Whistler Olympic Park

CBEC recognizes a number of important considerations for the Whistler Ski Jump option, including: lower projected cost; easement of congestion and scheduling complexity at the Calgary regional clusters; reduced wind risk; and the opportunity to utilize the relaxation of the venue distance requirements elaborated in the Olympic Agenda 2020 reforms.

CBEC acknowledges that the inclusion of the Whistler Ski Jumping option impacts the Calgary and Bow Valley Corridor OPWG hosting strategy by moving these events outside of the local region.

The distance from Calgary results in implications and incremental costs for operations, logistics, security and transportation. Further validation and analysis is required. See [section 7.1](#) for more details on the implications for security and costs.

Although this concept aligns with the reforms of Olympic Agenda 2020, CBEC considers hosting

■ events in another province to be an unconventional approach to mega-event hosting that impacts the experience of athletes, delegates and spectators.

■ Provisions would need to be made to include athletes in key Olympic events in Calgary to the maximum extent possible.

Canmore Nordic Centre

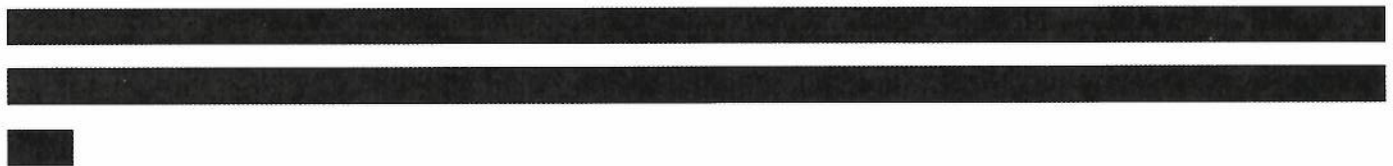
■ While the IOC questions the need for building another ski jump facility in Canada, CBEC surveyed three sites in and around the Canmore Nordic Centre for potential construction of a new ski jumping facility. We carried out a full due diligence model at the Georgetown location, considered the most logical site of the three.

■ Total costs, including construction of the access road, ski jumps, structures, chairlift and related facilities are projected to exceed \$100 million. In addition, environment concerns were identified, including visual disturbance as well as potential negative impacts on the river, wildlife habitats and wildlife migration patterns.

Expert resources

CBEC contracted Games Infrastructure Group and its team of Olympic infrastructure experts to provide expertise regarding selection of the venue. The architectural/engineering team responsible for analysis of the venue included:

- Lead: Stantec Architecture Ltd. / Ecosign
- Structural: Entuitive Corporation
- Mechanical: Remedy Engineering
- Electrical: SMP Engineering
- Refrigeration: Thermocarb / Allardyce Bower Consulting Inc.
- Civil: Watt Consulting
- Cost consultants: Axiom / Altus Group
- Environmental: Avens



4.2.13 CANMORE NORDIC CENTRE VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions using the Canmore Nordic Centre as the venue for Cross-Country Skiing, Para Cross-Country Skiing, Biathlon and Para Biathlon events in the 2026 OPWG. The plan builds on the venue's strong track record and world-class facilities and proposes upgrades to maintain its status as a highly-regarded facility for World Cup and other major events.

Facility

The Canmore Nordic Centre Provincial Park offers over 70 kilometres of cross-country ski trails, a biathlon shooting range and an extensive snowmaking system. Purpose-built as the venue for the 1988 Winter Games cross-country and biathlon events, the facility is popular year-round among recreational and elite athletes as well as outdoor enthusiasts.

A \$25 million refurbishment of the Canmore Nordic Centre was funded by the Alberta government and completed in 2008. Upgrades included:

- 2.5 kilometres of new cross-country ski and biathlon competition courses that meet international biathlon and cross-country requirements
- updated 30-point shooting range
- expanded and modernized stadiums
- a high-capacity snowmaking system for all competition courses

As a result of these major upgrades, the Canmore Nordic Centre was re-certified for hosting international cross-country skiing and biathlon events. Since 2005, the venue has hosted three Cross-Country World Cup events, the 2016 Biathlon World Cup and numerous other national and international competitions.

Baseline requirements

The Canmore Nordic Centre meets FIS International Competition Rules and, with the proposed upgrades, all International Biathlon Union International Competition Rules. The required on-site training, warm-up, and wax testing facilities are all available at the facility or can be temporarily added.

Gaps and associated capital costs

Planning is underway on an additional \$10 million in venue upgrades include snowmaking, snow storage, stadium re-alignment and course upgrades for World Cup hosting between now and 2026.

CBEC has identified the remaining gaps that would need to be addressed for the Canmore Nordic Centre to be used as the venue for the abovementioned Cross- Country and Biathlon events during the 2026 OPWG. These include:

- grading base area to meet Olympic expanded operating requirements
- upgrading utilities, including electrical and fibre optic capacity
- relocating existing facilities
- preparing transit site

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.15 Canmore Nordic Centre - Gaps and Associated Costs

Item	Cost (in '000s)
Base area development, utility upgrades and facilities relocation, transit site preparation	\$7,453
Total	\$7,453

Legacy opportunities

The Master Facilities Plan improvements are aligned with the long-term development plans for the venue and the specific work outlined above will produce long-term legacies. These upgrades will support both recreational and high-performance athletes and ensure the facility is maintained at a world-class level so that it can continue to host international and national events. In addition, the proposed venue improvements would facilitate hosting for additional World Cup events leading up to and following 2026 as well as test events in the season prior.

Engagement

Owned and operated by the Government of Alberta, the Canmore Nordic Centre is managed by the Alberta Parks Division's Kananaskis Region. During the exploration process, we engaged with Alberta Parks to ensure an understanding of CBEC's exploration process as well as the respective policy guidelines for the region.

In addition to consultation with the senior executive team of the venue operator, we engaged with numerous sport organizations and experts, including Biathlon Canada, Cross-Country Canada and Ski Jumping Canada as well as leadership of the Biathlon and Cross-Country World Cup events.

Other considerations

The unique requirements of the sports in question and the world-class facilities available at the Canmore Nordic Centre make it the only suitable venue in the region.

Expert resources

CBEC contracted experts with specific expertise in Olympic fit and overlay as well as Olympic transportation experts and international sport event experts to further refine the Master Facilities Plan for the venue.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: GEC Architecture

- Electrical: Smith + Andersen
- Refrigeration: Thermocarb
- Civil: Urban Systems
- Environmental: Avens Consulting Inc.
- Cost consultants: Altus Group

The complete information and technical data that informed CBEC's analysis for the Canmore Nordic Centre can be found in the full venue report (see *Appendix 4R*).

4.2.14 NAKISKA SKI AREA VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions using Nakiska for the Olympic and Paralympic Alpine and Snowboard events. Olympic events will include: Giant Slalom, Slalom, Alpine Team Event, Ski Cross, Parallel Giant Slalom and Snowboard Cross.

Paralympic events will include: [REDACTED]

As a current World Cup site for Ski Cross, Nakiska meets the requirements of Ski Cross and Snowboard Cross with only minor modifications. These events would take place on the same courses. Parallel Giant Slalom would complement Snowboard Cross by presenting another snowboard event at the same venue, thereby offering operational efficiencies and synergies in terms of equipment, scheduling and officiating.

With this roster of events, the venue would be heavily utilized, with competition events expected to take place on at least ten days of the Games. Weather delays could require that multiple medal events are held in a single day and will require careful planning to manage the scheduling complexities and other variables.

Facility

Owned by Alberta Parks and operated by the Resorts of the Canadian Rockies, Nakiska Ski Area is a major western Canadian ski resort featuring over 1,000 acres of skiable terrain serviced by high-capacity lifts, equipment and resort services. Purpose-built for the alpine skiing and freestyle demonstration requirements of the Calgary 1988 Winter Olympic Games, the resort is set within the Kananaskis Country provincial park system in proximity to the Kananaskis Village hotel complex.

Baseline requirements

The venue meets all International Competition Rules for the selected sports, including discipline-specific requirements for vertical drop, course grade and width as well as snowmaking equipment for all courses to offset weather risk. On-site training, warm-up, and ski testing facilities are also required.

Significant base requirements are also required for hosting this set of events and accommodating the Olympic operating footprint. In addition to the sport field of play, the Games require a flat surface for media and access for bus loading.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for the Nakiska Ski Area to be used as the venue for the abovementioned Alpine and Snowboard events during the 2026 OPWG. These include:

- upgrading road access to Alpine finish stadium

- expanding trails for Ski and Snowboard Cross

- preparing base area to meet Olympic overlay requirements
- upgrading utilities, including electrical and fibre optic capacity
- installing on-mountain lighting for night operations and course preparation
- upgraded building, including training centre and day lodge

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.16 Nakiska - Gaps and Associated Costs

Item	Cost (in '000s)
Alpine Technical courses road access	\$12,141
Alpine Technical courses finish area	\$4,545
Facilities	\$3,000
Utility upgrades	\$1,898
Base area improvements	\$3,547
Cross / PGS / Slope development	\$2,928
Total	\$28,059

Legacy opportunities

The facility upgrades for Nakiska would provide significant legacy benefits in the form of an upgraded day lodge, and other base area improvements. These improvements are aligned with the long-term development plans for the venue. Other legacies include improved ski and snowboard trails and improved road service to mid-mountain. These venue improvements would also facilitate hosting for additional Ski Cross and Snowboard Cross World Cup leading up to and following the 2026 OPWG as well as test events in the season prior.

Engagement

The Master Facilities Plan concept for the Nakiska Ski Area was guided in part by our engagement with Alberta Parks and with the Resorts of the Canadian Rockies to ensure alignment of the proposal with the stakeholder strategic plans.

During the exploration process, we consulted with relevant alpine and snowboard sport organizations to ensure a precise understanding of technical requirements and challenges and also to provide context and direction for our engagement efforts. Over the course of the project, we engaged with Alpine Canada technical leadership, the FIS Alpine Technical Delegates Director, Fédération Internationale de Ski (FIS) Freestyle, FIS Snowboard, Canada Snowboard and Freestyle Canada.

Other considerations

During the exploration process, we considered other venues for the above mentioned events as well as a different roster of events for the Nakiska venue.

We considered whether Nakiska could host all the mountain events. For the Alpine Speed events however, Nakiska is not a preferred venue option due in part to negative FIS perceptions about the course quality following the 1988 Games. Improving the course quality would require more significant and costly upgrades than what would be needed at Lake Louise. In addition, the Lake Louise Ski Resort offers an established venue for these events and more optimal average weather conditions in terms of both temperature and wind.

Our analysis also looked at the possibility of hosting all alpine events or all mountain events at Lake Louise, but ultimately the shared mountain solution best fits the cost, environmental and scheduling needs. Although Nakiska could support Slopestyle (Freestyle), the International Federation indicated a strong preference for the “sport- culture-friendly” urban site at WinSport. Similarly, Freestyle Moguls and Aerials could also fit into the Nakiska resort, but both are firmly established at WinSport and the WinSport venue is well-regarded. In addition, hosting these events at Nakiska would require additional investment and would add scheduling challenges to an already busy roster.

CBEC also evaluated Nakiska and the wider Kananaskis area for possible Ski Jumping venues, but we were unable to find a suitable location.

We explored a number of other possible venues for alpine events, including Mt. Norquay, Sunshine Village, Panorama Mountain Resort and Castle Mountain. These options were eliminated from consideration due to various factors and considerations, including: distance, terrain fit difficulties, capacity concerns, limited sport experience, infrastructure shortfall and unpredictable weather.

Expert resources

CBEC contracted experts with specific expertise in Olympic fit and overlay as well as Olympic transportation experts and international sport event experts to further refine the Master Facilities Plan for the venue.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: Group 2 Architecture
- Civil: Urban Systems
- Cost consultants: Altus Group

4.2.15 LAKE LOUISE SKI RESORT VENUE OVERVIEW

The Master Facilities Plan envisions using the Lake Louise Ski Resort as the venue for three different Alpine events including: Alpine Downhill, Alpine Combined and Alpine Super G. The venue is an experienced host of annual World Cup Alpine Downhill and Alpine Super G events.

Facility

The Lake Louise Ski Resort is the largest ski resort in the Canadian Rockies, featuring over 4,000 acres of skiable terrain and multiple terrain parks, all serviced by high- capacity lifts, equipment and resort services.

The existing ski resort has a day skier approximate capacity of 6,500 and future development plans intends to increase capacity to approximately 9,500. Set in Banff National Park, the resort is the first stop on the FIS Alpine Ski World Cup circuit and the only Canadian venue. The Lake Louise Ski Resort hosted its first Alpine Ski World Cup in 1980 and its first FIS Snowboard Cross World Cup in 2013.

Baseline requirements

The Lake Louise Ski Resort meets all International Competition Rules for the selected sport events, including vertical drop, course grade and width, and snow preparation equipment. On-site training, warm-up, and ski testing facilities are currently at standard.

Gaps and associated capital costs

CBEC has identified the main gaps that would need to be addressed for the Lake Louise Ski Resort to be used as the venue for the abovementioned Alpine and Snowboard events during the 2026 OPWG. These include:

- preparing base area to meet Olympic overlay requirements
- widening and realigning portions of the course and associated snowmaking upgrades
- site selection of Alpine Combined Slalom finish area
- implementing course crossings to increase safety, improve course flow and facilitate movement of people and equipment
- upgrading utilities, including electrical and fibre optic capacity

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.17 Lake Louise Ski Resort – Gaps and Associated Costs

Item	Cost (in '000s)
Course upgrades (including Alpine Combined)	\$3,428
Course widening and grading	\$1,349
Course crossings	\$9,569
Snowmaking	\$956
Base area development and facilities	\$3,188
Utility upgrades	\$2,539
Total	\$21,029

Legacy opportunities

The proposed venue improvements for the Lake Louise Ski Resort would facilitate hosting for additional World Cup events leading up to and following 2026 as well as test events in the season prior to the 2026 OPWG. The course crossings, safety equipment and new course alignment would improve the safety of ongoing resort and hosting operations. Use of this facility would also showcase to the world the grandeur of the Canadian Rockies and the National Parks of Canada.

Other facility upgrades, including upgraded trails and snowmaking services align with long-term development plans for the venue and would increase use of the facility for both recreational and high-performance sport.

Engagement

During the development of the Master Facilities Plan, CBEC consulted with the venue operator to ensure the proposed use of the facility and proposed upgrades aligned with the operator’s long-term master development plan.

CBEC also conducted a preliminary discussion with Parks Canada to consider the possible use of the Lake Louise Ski Resort as a venue for an Olympic and Paralympic Winter Games. Parks Canada referred CBEC to the existing operating guidelines for Lake Louise and CBEC has worked with the resort to ensure that the proposed activities envisioned in the MFP align with these guidelines.

A review and consideration of alignment to Parks Canada policies and guidelines for staging events in the national park is in progress and will be further evaluated pending an advancement to bid phase and selection of a final Master Facilities Concept.

Should a bid go forward and Lake Louise be recommended as a venue, the international bid team will need to continue to work with the resort as it completes its master plan. Continued work with Parks Canada will be required to obtain the required approvals of the proposed hosting plan.

CBEC also consulted with relevant sport organizations to ensure a precise understanding and consideration of the technical requirements for sport and competition. Over the course of the project, CBEC engaged Alpine Canada's technical leadership, the Fédération Internationale de Ski (FIS) and the FIS Alpine Technical Delegates Director.

Other considerations

CBEC considered Nakiska as a possible venue for the Alpine Speed events, but Lake Louise Ski Resort offers an established venue for these events and more optimal average weather conditions in terms of both temperature and wind. Our analysis also looked at the possibility of hosting all alpine events or all mountain sports at Lake Louise, but this grouping of all events at a single venue would create a scenario with greater risk for weather delay and missed events and require significantly greater development within Banff National Park.

Lake Louise would offer a similar hosting capacity for the Alpine Technical events (Slalom and Giant Slalom) as Nakiska and could remain under consideration for these events in order to have all Alpine events at one venue.

Lake Louise has the capacity to host Ski and Snowboard Cross and Snowboard Parallel Giant Slalom, but the additional development of the required sites is complex, remote and not as ideal as the Nakiska location.

A number of other venues were explored, including Mt. Norquay, Sunshine Village, Panorama Mountain Resort and Castle Mountain. These options were eliminated from consideration due to various factors and considerations, including: distance, terrain fit difficulties, capacity concerns, limited sport experience, infrastructure shortfall and unpredictable weather.

Expert resources

CBEC contracted experts with specific expertise in Olympic fit and overlay as well as Olympic transportation experts and international sport event experts to further refine the Master Facilities Plan for the venue.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: Group 2 Architecture
- Civil: Urban Systems
- Cost consultants: Altus Group

4.2.16 BANFF CENTRE VENUE OVERVIEW

Proposed use

The Master Facilities Plan envisions hosting the Mountain Media and Broadcast Centre at the Banff Centre for Arts and Creativity. This satellite media centre would augment the Main Press Centre (MPC) and International Broadcast Centre (IBC) in Calgary and provide media with facilities in proximity to the events taking place at Nakiska, the Canmore Nordic Centre and Lake Louise.

Facility

Located on 43 acres within the Banff townsite, the Banff Centre for Arts and Creativity offers a large campus of facilities, including over sixty meeting rooms, lecture halls and auditoriums capable of hosting audiences of up to 1,000. The complex has two hotels as well as extensive dining services and on-site fitness and recreation facilities. The Banff Centre places a high priority on sustainability both in terms of infrastructure and day-to-day operations and has been awarded certifications in several environmental stewardship programs.

Baseline requirements

Per Olympic requirements, the Mountain Media and Broadcast Centre is in proximity to the mountain sport venues; it is 30 minutes from Canmore, 45 minutes from Lake Louise and approximately an hour from Nakiska. The MPC and IBC in Calgary are an hour-and-a-half drive away.

The Mountain Broadcast Centre requires approximately 9,000 square metres of gross space for operation, with a minimum of 5,000 square metres that is appropriately configured for the internal fit out of broadcast facilities. The Mountain Press Centre, which would also be used for the duration of the Olympic Winter Games, requires a capacity of approximately 3,000 square metres.

Gaps and associated capital costs

Our analysis established that all gaps identified can be addressed by temporary Olympic overlay solutions and Games operations and thus covered by the Olympic operating budget. No capital costs have been identified.

Legacy opportunities

Although no capital upgrades are envisioned for the Banff Centre to meet Olympic requirements, hosting of the media centre for a high-profile international event such as the Olympic and Paralympic Winter Games aligns with the Banff Centre's long-term vision and would support the organization's international marketing position as a premier venue capable of hosting large-scale conferences that value sustainability. The breathtaking setting of the venue along with the upscale amenities offered at the Banff Centre would likely generate additional positive international media coverage for the region.

Engagement

CBEC worked with the Banff Centre general management and operations teams to review the features of the facility and determine suitability to meet Games requirements.

Other considerations

During the exploration phase, CBEC considered hosting the Mountain Media and Broadcast Centre at a number of

venues in Kananaskis and Canmore. Although these sites may be utilized in some form for the 2026 OPWG, leveraging the existing facilities at the Banff Centre -- with its comprehensive package of conference facilities, accommodations and amenities -- offers the best and most cost-effective option for hosting media operations and was the only facility identified with sufficient space for the Olympic requirements.

Expert resources

CBEC engaged Games Infrastructure Group as well as transportation specialists to provide analysis for the venue selection process.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: Group 2 Architecture
- Cost consultants: Altus Group

The complete information and technical data that informed CBEC's analysis can be found in the full venue report (see *Appendix 4U*).

4.2.17 TRAINING VENUES OVERVIEW

Proposed use

The Master Facilities Plan envisions converting the Agrium Western Event Centre into a training venue for Figure Skating. For Hockey and Short Track Speed Skating, three of the four ice surfaces at the Markin MacPhail Centre will be used for training.

Facility

The Agrium Western Event Centre opened in 2014 as a year-round western events and agricultural education centre at Stampede Park. The arena has a 76 metre by 36 metre show floor, which is large enough to install a temporary surface for figure skating practice.

The Markin MacPhail Centre is a cluster of arenas located within the WinSport complex comprising four arenas: three NHL-sized rinks for hockey and one Olympic ice surface, which is required for short track speed skating.

Baseline requirements

The field of play for practice facilities must be as similar as possible to that in the competition venue. Because the Saddledome will be configured with an Olympic-sized ice surface for Figure Skating competition, the practice ice at the Agrium Western Event Centre must also be Olympic-sized. In addition, proper dehumidification must be in place to ensure that the ice is of similar quality to that at the Saddledome. A practice facility within walking distance of the competition venue is strongly preferred for figure skating so that athletes can warm up immediately before their events.

Short track speed skating requires Olympic-sized ice for safety reasons, making the Olympic-sized ice surface at the Markin MacPhail Centre a good fit for the training facility.

Two NHL-sized ice surfaces are required for the hockey training facility. These surfaces must also have NHL-style dasher boards for safety and good-quality locker rooms.

Gaps and associated capital costs

The conversion of the Agrium Western Event Centre to a figure skating practice venue requires building an Olympic-sized temporary ice surface and renting or purchasing a temporary ice plant and a temporary dehumidification unit.

The below table outlines the projected costs (including design, engineering and construction management) of addressing the identified gaps.

Figure 4.18 Training Venues – Gaps and Associated Costs

Item	Cost (in '000s)
Slab and sand bed	\$563
Ice plant	\$426
Dehumidification unit	\$71
Post-Games clean-up	\$213
Total	\$1,273

No upgrade work is required at the Markin MacPhail Centre and no capital costs are expected.

Legacy opportunities

The facility upgrades proposed for the Agrium Western Event Centre will be removed at the end of the Games to return the venue to its original configuration. If the temporary ice plant and dehumidification plant required was purchased, it could be re-used at another facility or used to convert a level space into an arena. The budget assumes a rental cost but it could be purchased for a small premium.

Engagement

CBEC engaged with Hockey Canada, Speed Skating Canada and Skate Canada during the exploration process.

Other considerations

There are four arenas in Calgary with Olympic-sized ice and any could be used as a training venue for figure skating. The Agrium Western Event Centre was selected due to its proximity to the Saddledome, which will allow athletes to warm up on skates immediately before their event. It is also within the secure zone of the Stampede Park cluster, thereby streamlining security operations and reducing security costs.

Aside from the Markin MacPhail Centre, three other Calgary facilities offer Olympic- sized ice surfaces and could be used as a training facility for short track speed skating: the Max Bell Centre, the Father David Bauer Olympic Arena and Flames Community Arenas. However, the Markin MacPhail Centre is the newest facility and boasts the most modern change rooms. In addition, its location within the WinSport cluster reduces security costs.

Although many venues in Calgary could provide the two NHL-sized ice surfaces required for a hockey training venue, only the Markin MacPhail Centre has three sheets of NHL-sized ice with NHL-approved dasher boards and modern change rooms. Again, locating this venue within the WinSport cluster will also reduce security costs.

Expert resources

We contracted Games Infrastructure Group to provide expert advice on Olympic requirements.

The architectural/engineering team responsible for analysis of the venue included:

- Lead: Thermocarb
- Cost consultants: Altus Group

The complete information and technical data that informed CBEC's analysis for the training venues can be found in the full venue report (see *Appendix 4V*).

4.3 VILLAGES, ACCOMMODATION AND TRANSPORTATION

4.3.1 ATHLETES' VILLAGES OVERVIEW

The athletes' villages are often referred to as the heart of the Olympic and Paralympic Games. They play an important role both in meeting the practical needs of the athletes and in defining their Olympic or Paralympic experience.

The villages serve as a home away from home for the athletes, providing comfortable "three star" accommodation along with a range of key services and supports, from healthy dining and technology to fitness facilities and recreation.

In past Games, athletes' villages have taken many forms, including student residences, modular accommodations and market and/or non-market real estate developments. Athletes' village projects are generally developed over a five-year period, with two years of planning and site works, followed by two-and-a-half years of construction and finally an eight-month period of use during the Olympic and Paralympic Games.

Most recent athletes' villages have been hosted in new developments, either all market housing or a mix of market and non-market. The concepts developed by CBEC aim to create a mix of affordable and market housing to meet community legacy aspirations, provide the necessary mix for sustainable neighbourhoods and manage the overall net cost.

In addition to the core housing function, athletes' villages also include a variety of other components. Most of these facilities are created as temporary overlay spaces and removed after the Games, including:

- dining facilities for athletes and team officials, as well as the workforce dedicated to operating the facility
- a polyclinic offering advanced medical care, including full diagnostic services
- recreation, fitness and religious facilities for athletes and team officials
- meeting rooms and offices for each of the approximately 100 teams attending the Games
- an "International Plaza" with ceremonial spaces and village services such as retail, hairdressing, telecom, banking and souvenir sales
- a transport mall for the comprehensive bus services that support team and media movement
- dedicated parking for team and support services vehicles

operational support spaces for housekeeping, logistics, team equipment storage, accreditation, food services, media services and a variety of other uses

security infrastructure as well as security and emergency services facilities

The temporary services require up to eight hectares (20 acres) of flat space per village in addition to the residential housing area. Construction of the temporary services as well as fitting out of the residential components takes place over a five-month period prior to the Games. The villages are in operation for a period of approximately two months followed by a one-month decommissioning and conversion period.

Accessibility requirements for the Paralympic athletes' villages are normally designed into the Olympic athletes' village to minimize the transition from Olympic to Paralympic village. Overall, the villages required for the Paralympics are much smaller and can be met within the facilities provided for the Olympic villages.

The total requirements for the 2026 OPWG athletes' villages is 6,000 beds, approximately double that of the 1988 Games. The bed requirements shown in Figure 4.19 are based on the anticipated team sizes planned for PyeongChang 2018. The Calgary/Mountain split is based on the location of the sports venues.

Figure 4.19 Olympic and Paralympic Bed Requirements

Location	Olympic Bed Requirement	Paralympic Bed Count
Calgary	3,650	400
Mountain	2,350	1,000
Total	6,000	1,400

[REDACTED]

[REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]

[REDACTED]

[REDACTED] would comprise a mix of studio, one-, two- and three- bedroom apartments with the final mix established in 2022 to align with anticipated future market demand. Of the 841 planned units, approximately 174 units (20 per cent) would be designated as “Attainable Home Ownership” units. These units have been planned within the economic model to allow for an approximate 25 per cent reduction in net selling price, either in the form of a discount or down payment support generated through the Games. The remaining market units would be rented initially and potentially sold over time based on market conditions. The concept development also includes approximately 15 per cent commercial space.

Consistent with past Games practices, temporary demising of apartment living rooms is planned to add temporary bedrooms and create a more efficient and cost-effective model to meet the required village bed count.

The village requires approximately 1,925 bedrooms (or temporary bedrooms) to meet the Olympic capacity target, with an average of just under two beds allocated to each room. Immediately after the Games, apartments would be reconfigured into their legacy mode. This practice reduces the total number of apartment units that must be constructed.

An economic model [REDACTED] was developed in consultation with the Calgary Municipal Land Corporation (CMLC). The model indicates an overall project cost of \$443 million. A capital contribution of \$55 million from the Olympic capital budget would be required to cover the incremental conversion and holding costs and to support the development of attainable housing units. [REDACTED]

[REDACTED] Further validations are required to confirm this estimate.

We anticipate that the balance of the development cost will come from developer investments and [REDACTED] [REDACTED] contributions towards the site servicing and development. CMLC would oversee the site planning and proposal call to developers and ensure overall adherence to the Olympic, Paralympic and legacy requirements by the selected developer(s). The Olympic Organizing Committee would be responsible for installing the temporary facilities and operating the housing units as an athletes' village during the 2026 OPWG.

Mountain Athletes' Village

There is a significant shortage of affordable and employee housing [REDACTED] the mountain communities place a high priority on developing solutions to this challenge. [REDACTED] [REDACTED] 1,000 units of Perpetually Affordable Housing and 2,000 to 2,500 Employee Housing Units over the next ten years.

[REDACTED] addressing the shortage with housing designed to be affordable to the original purchaser [REDACTED] [REDACTED] and to subsequent purchasers. Ongoing affordability is maintained by legal conditions associated with the properties that limit the allowable increase in selling price over time to a factor tied to the change in the Consumer Price Index. This creates "perpetual affordable housing" that is critical to the region's long-term sustainability.

The concept for the mountain athletes’ village builds on this strategy by proposing that a portion of the athletes’ village would be developed as perpetually affordable housing for residents of the mountain communities. The balance of the development would be market townhomes and employee housing units.

The concept plan for the mountain athletes’ village comprises 160 three-bedroom market townhomes, 150 two-bedroom perpetually affordable townhomes and 360 one- bedroom employee housing units. The plan is intended to be in keeping with future development but allows flexibility to adjust the plan based on market demand and evolution of community priorities in the years leading up to the Games. The housing units would be temporarily configured to maximize the Olympic and Paralympic bed count, with living rooms configured as temporary bedrooms and then converted to their legacy configuration post-Games.

The cost of the proposed mountain athletes’ village development is estimated at \$300 million. A \$41 million subvention from the Olympic capital budget would be required to ensure the development meets the Olympic and Paralympic requirements and yields a legacy of perpetually affordable housing for the mountain communities. The \$41 million would cover the conversion costs and incremental holding costs and support the funding of the perpetually affordable housing. The Olympic Organizing Committee would be responsible for installing the temporary facilities and operating the housing units as an athletes’ village during the 2026 OPWG.

Identifying a sufficient and appropriate land parcel to develop the athletes’ village housing and associated temporary facilities poses unique challenges in a mountain community. [REDACTED]

[REDACTED]

[REDACTED] Further due diligence is required to gain a fuller understanding of this option. In addition to a potential Athletes’ Village, CBEC also considered opportunities for ancillary accommodation needs and ensuing legacy opportunities that might align with the long-term interests and goals of [REDACTED] was receptive to investigating opportunities and advancing further discussions on potential synergies and future collaboration.

If the City of Calgary decides to move forward with a bid, more detailed land use discussions with site owners, the [REDACTED], is required. This work to finalize a village plan and delivery strategy would be undertaken during the international bid phase.

Expert resources

The architectural/engineering/project management team responsible for analysis of options included:

- Avens Consulting
 - Brent Harley and Associates
 - Cutler Synthesized Projects
 - IPS Consulting Limited
 - Marshall Tittlemore Architects
 - McElhanney Consulting
 - Vision Development Management
- [REDACTED]
- [REDACTED]

4.3.2 ACCOMMODATION OVERVIEW

Meeting the accommodation needs of Olympic and Paralympic stakeholders, as well as workforce and spectators, is a critical element in the bidding and hosting of the OPWG. Should a Calgary bid go forward, an adequate supply of accommodation in the City of Calgary and mountains must be secured with binding contracts during the candidature phase. Paralympic Games accommodation requirements are less onerous and can be satisfied with the existing accommodation inventory in both the city and mountain zones.

Estimated hotel room needs for Olympic and Paralympic stakeholders and workforce (including security) are shown in Figure 4.20. Olympic and Paralympic Stakeholders include sponsors, media, IFs, NOCs, and the IOC/IPC. Virtually all rooms for these groups must be hotel-style with a private bathroom.

Figure 4.20 Estimated Olympic and Paralympic Hotel Requirements

Group	City Zone	Mountain Zone	Total Rooms	Notes
Olympic and Paralympic stakeholders	17,680	5,605	23,285	Based on IOC operational requirements
Workforce (including security)	3,650	2,750	6,400	Based on adjusted Vancouver 2010 requirements
Total	21,330	8,355	29,685	

The city and mountain regions have well-developed hospitality sectors with substantial inventory of quality hotel and vacation properties. A typical Olympic bid will contract 90 per cent of the available inventory. Hotels retain some inventory to service ongoing customer needs, such as the accommodation of airline crews.

Our analysis of existing and projected inventory of hotel and other accommodations indicates an expected deficit of approximately 3,100 rooms in Calgary (see Figure 4.21).

This shortfall is net of the anticipated 3,000-room increase in hotel room inventory over the next seven years. Our analysis suggests that the accommodation inventory in the mountain zone is adequate to meet Olympic requirements.

Figure 4.21 Projected Hotel Room Shortfall

Group	City Zone	Mountain Zone	Notes
Estimated accommodation inventory	18,230	8,885	Based on an average booking of 90% of available inventory
Accommodation requirements	21,300	8,355	
Surplus (shortfall)	(3,100)	530	

To address this shortfall in hotel room accommodations for Olympic and Paralympic stakeholders and workforce, CBEC explored four primary approaches, which together would provide all required inventory through a combination of legacy and temporary solutions. These include:

- affordable housing
- student accommodation
- subsidized seniors housing
- modular housing

Spectator accommodation is typically met with non-traditional forms of accommodation. This area is discussed at the end of the Accommodation Overview.

In addition to the investigation of several projects located on city-owned land, CBEC also considered a planned future development on [REDACTED]. Discussions were held with the [REDACTED] [REDACTED] to examine possible synergies of these proposed developments with the Olympic accommodation needs outlined in this section of the report.

Affordable housing

The City of Calgary has identified a critical need for affordable housing that is projected to continue over the next 10 to 15 years. To help address this gap, the City at one time had a target of adding approximately 200 new affordable housing units each year, even though the current target is less based on funding availability. For the purposes of the Olympic legacy objective, we have utilized the past target to support a more ambitious affordable housing legacy. CBEC's housing concept is intended to satisfy the 2026 OPWG accommodation needs while also aligning and reinforcing the City's as well as senior governments' affordable housing strategy.

The CBEC concept proposes constructing 800 new housing units – equivalent to four years of the more ambitious target – for “just in time” delivery before the 2026 OPWG. During the Games, the units would provide temporary accommodations for approximately 1,500 accredited media. Immediately after the Games, the units would be converted to permanent affordable housing units. The constructed units would be offered in variety of configurations, including single occupancy units, family units and supported seniors' units.

This concept involves several projects located on city-owned land parcels slated for future development or redevelopment to accommodation provision of both market and non-market accommodation.

Based on a model program with a mix of affordable units of various configurations and future income levels, the anticipated cost of 800 affordable units is \$194 million, (based on using a LEED® gold standard). This cost includes a \$13 million contribution from the Olympic capital budget. The Olympic Organizing Committee would be responsible for operating the affordable housing units as hotels during the 2026 OPWG and would recover this operating cost through rental to Olympic and Paralympic media.

The proposed developments could occur independently of the future market housing development, or if market conditions allow, concurrently with market housing developments. Funding for the projects would follow the traditional funding equation, with capital grants from all three levels of government. The Olympic capital budget would cover the incremental conversion and holding costs.

Seniors' housing

There are 515,000 seniors in Alberta today. In less than 20 years, that figure is expected to double (see *Appendix 4DD: Alberta's Affordable Housing System*). Seniors' housing offers a potentially viable solution to meet the short-term accommodation requirements of the Games while also addressing housing needs for an aging population. There is already a shortage of affordable seniors' housing and this need will only increase over time as population demographics evolve. Pursuing projects that provide short-term accommodation solutions for the 2026 OPWG and long-term legacies for the city and province could offer a winning proposition.

The typical configuration of seniors' housing is a good match to the hotel-style accommodation needed to house OPWG stakeholders. The need for seniors' housing to be accessible makes it an ideal connection with the Paralympic accommodations.

In the past, the province has offered capital incentives to entice developers to construct seniors' housing that can be offered to lower-income seniors at below market rates. The development incentives essentially allow the province to "buy down" the cost of the development, thereby enabling the developer to offer lower rental rates while still maintaining a viable economic model. The amount of the buy down incentive will determine the subsidy a developer can offer. These developments are not as heavily subsidized as the supported seniors' housing discussed under affordable housing above.

In our model, CBEC proposes constructing 420 subsidized seniors' housing units at a capital cost of \$125 million and a subvention of \$28 million. This subvention has been carried in the Olympic and Paralympic capital cost budget. However, if available, future provincial programs could be leveraged to obtain the same result.

Student accommodation

Precedent from past Games and the anticipated future student housing requirements of post-secondary institutions in Calgary led CBEC to examine how student accommodation might align with OPWG requirements.

The CBEC concept proposes constructing a total of 800 residence rooms before the 2026 OPWG. During the Games, the units would provide temporary accommodations for approximately 800 accredited media and other stakeholders. Units could be located [REDACTED] location to serve multiple institutions. Immediately after the Games, the units would be converted to student housing.

For post-secondary institutions, student accommodation is an ancillary activity. Funding generally comes from non-governmental sources and the bulk of the development cost is covered by mortgages funded by student rents. Therefore, the CBEC concept assumes that no government funding would be required beyond the Olympic subvention discussed below. In past Games in Canada, the Olympic capital budget has funded a subvention that bridges the gap between the project cost and the mortgage a student accommodation project can support. This subvention has varied but has generally ranged from 20 to 25 per cent of costs.

Although student housing has traditionally been funded and owned by post-secondary institutions, there is a growing trend toward these projects being developed or acquired by pension funds looking for long-term stable sources of rental revenue.

For the purposes of this report, a model program envisions construction of 800 residence rooms at a total cost of \$93 million funded in part by a subvention from the Olympic capital budget of \$23 million. The balance of the cost would be supported by a mortgage funded by net student rents. The Olympic Organizing Committee would be responsible for operating the student housing units as hotels during the 2026 OPWG and would recover operating costs through rental rates to Olympic and Paralympic media and other stakeholders.

This solution would add to the inventory needed for Games accommodation and result in a long-term legacy of affordable student accommodation.

Modular housing

The affordable housing, student accommodation and subsidized seniors' housing program initiatives discussed above would yield 2,500 rooms of the 3,100-room shortfall. CBEC proposes resolving the balance with modular housing. Modular housing represents a flexible and scalable solution that could meet any deficit in accommodation requirements after giving effect to legacy solutions.

Costs for rental and setup of temporary modular solutions are generally higher than typical hotel rates. As a result, this option would require a subsidy from the Organizing Committee if used for Olympic and Paralympic stakeholder groups. A modular housing complex of approximately 660 rooms would close the shortfall of needed hotel-style accommodation and would be located on a vacant site in the Calgary area. Costs for modular housing are not considered capital costs and would be funded by the Olympic Organizing Committee and/or the end user.

Alberta – and Calgary in particular – boasts a strong industrial sector for modular housing and many of our local companies are global leaders in the field. One key benefit of modular housing is that solutions can be easily scaled up or down as required to meet demand. Room size and bathroom ratios can also be customized to meet the requirements of particular user groups. Modular housing suppliers also offer turnkey solutions that include cleaning and catering services, thereby streamlining operations.

A rental solution of modular housing would not produce any long-term legacy benefits. However, it is possible to consider establishing a purchase option if a legacy need arises and the associated funding is available. Following the Games, this option could provide up to 660 units of affordable housing to be deployed across the province, if funding were available.

Spectator accommodation

OPWG spectators generally fall into three groups:

- ▀ Local residents

- Olympic stakeholder hospitality guests

- Visitors

Local residents represent the bulk of spectators and purchase the majority of tickets. This group does not require accommodation.

Accommodations for Olympic stakeholder hospitality guests are addressed above in the discussion of hotel-style accommodation.

Given that most hotel rooms will be committed to the Olympic and Paralympic Stakeholder and workforce program, most visitors will stay in non-traditional forms of accommodation. This is a common phenomenon at the Games and the advent of the “sharing economy” has greatly alleviated the challenge of housing visitors. Typically, visitors stay in one of three forms of accommodation:

- Family and friends. This is the most prevalent form of accommodation for visitors, most of whom are from other parts of Canada as supply of tickets to other countries is tightly regulated by the IOC and NOC of each country.

- Homestay programs. In past Games, two forms of homestay programs have been used: a homestay program for the families of athletes -- often offered by homeowners at no charge -- and a fee-based program for general visitors.

- Home sharing. Airbnb made a massive impact at the Rio 2016 Games where it signed a partnership deal as the “official alternative accommodations” for the Games. The Rio experience demonstrated that the Airbnb inventory could be expanded dramatically on a short-term basis to support the accommodation demands of the Games. For travelers attending major events, Airbnb is now a widely-accepted means of securing accommodation. Other companies such as VRBO offer similar services.

The combination of these three forms of accommodation is expected to meet the needs of visitors to Calgary for the 2026 OPWG. Vancouver, Whistler and Squamish have a substantial capacity to host visitors who may wish to attend the Ski Jumping and Nordic Combined Events.

Expert resources

The architectural/engineering/project management team responsible for analysis of accommodation options included:

- Marshall Tittlemore Architects
- NORR Architects
- Vision Development Management

4.3.3 TRANSPORTATION OVERVIEW

The transportation requirements of the OPWG includes four main elements:

- The dedicated transportation of Olympic stakeholders: athletes, officials, media, sponsors and the Olympic family to and from event venues.
- The transportation of spectators, workforce and volunteers to and from events in a safe, reliable and time and cost effective manner.
- The operation of transport operations at each venue to manage the loading, unloading, staging and parking for spectator/volunteer transport systems and Olympic family transport systems.

- The safe, reliable transportation system that continues to serve the daily needs of the city and its citizens.

Transportation needs have changed since the 1988 Winter Olympic Games. There are now more events, more participants and support services and the addition of nine days of Paralympic Games. Comparative figures are shown in Figure 4.22.

Figure 4.22 Participant and Attendee Figures - 1988 vs. 2026 Comparison

	1988 Games	2026 OPWG
Athletes	1,400	3,000
Olympic Events	46	102
Media	6,800	15,000
IOC Family and Officials	190	10,100
Spectators	1,507,376	1.67 *approx.

Another challenge to transportation is the reduction of the carbon footprint, as discussed in [section 10](#).

Since 1988, Calgary has invested in its transportation infrastructure and now provides a more robust network with improvements such as:

- Significantly expanded LRT system serves more parts of the city and four-car trains move higher volumes of people.
- Stoney Trail provides a rapid connection from the airport to the mountains and WinSport.
- The transit system is now fully accessible for those with mobility challenges.

- The Trans-Canada Highway / Bowfort Road interchange (under construction) will increase the access capacity at WinSport.

■ The ring road expansion will add additional capacity to the Calgary road network, and potentially to the WinSport venue cluster.

City transportation

The City of Calgary's role in the 2026 OPWG transportation strategy is to ensure that the public transit system functions at a high level, managing ongoing public and Olympic/Paralympic spectator/workforce needs, managing vehicle requirements, and ensuring that other options such as walking and cycling are facilitated. The overall transport program will be assisted by executing several strategies, which will help make travel convenient, reduce daily travel demand and facilitate venue access:

- Promote working from home (telework) and carpooling to reduce daily travel demand.
- More frequent and extended transit service.
- Expanding capacity by retaining older fleet or advancing the purchase of new fleet for games time needs.
- Allowing event tickets to serve as a transit tickets. This was a successful strategy in 1988 to promote transit use to the venues and has since been used in subsequent Olympics including Vancouver 2010. This also reduces delays caused by the need to purchase tickets on site.
- Establish satellite parking locations and providing direct transportation service to WinSport and mountain venues and/or a mountain venue spectator transfer hub.
- Adding additional transit service to WinSport from the LRT lines and downtown.
- Instituting an Olympic and Paralympic lane network to facilitate the movement of athletes, media, emergency service vehicles and public transit buses between venues in a timely manner.

- Identifying opportunities to utilize and showcase environmentally friendly bus and vehicle systems, and if
- ▀ feasible as per the current Calgary-Bow Valley Mass Transit Feasibility Study, rail solutions to the Canmore/Banff/Lake Louise venues.

- ▀ Investigating new emerging technologies such as autonomous vehicles for specific modes of transport.

Calgary Stampede cluster

The concentration of activities at Stampede Park is ideal from a transportation operational perspective. The LRT will be the primary method of spectator travel to and from the park. The projected spectator volumes can be accommodated with existing LRT infrastructure, which would be enhanced by the Green Line if it is in place by 2026.

The City is experienced with managing travel to and from Stampede Park for activities such as the Calgary Stampede and Calgary Flames games. The travel demand during the OPWG is expected to be like a busy day at the Calgary Stampede, but with more “peaks” as people arrive and leave events. Thoughtful scheduling of event times, enhanced transit frequencies and supportive travel reduction strategies will be essential.

During the OPWG there will be no spectator parking in the Stampede area. Parking and logistic spaces for the support operations and transport system bus staging will occupy all available spaces plus 12th Avenue. Two dedicated accesses from 12th Avenue and some additional area parking will be required for the event operations buses and Olympic stakeholders such as the media. Lane closures in the area will be determined based on operations and security requirements [REDACTED]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

University of Calgary - Olympic Oval

The Speed Skating events will be held at the Olympic Oval at the University of Calgary. We anticipate an extended reading week at the University during the Olympics, making parking capacity available for Olympic use.

Spectator access will be primarily by LRT and local bus service, with some limited parking available. Once the event schedule is determined, refinements to the transit schedule can be made.

Dedicated vehicle access areas for athletes, officials, workforce and volunteers, media and the Olympic family will use the available parking stalls. The straightening of West Campus Way will facilitate load and unload zones for event operations buses as shown in Figure 4.24

Figure 4.24 University of Calgary - Transportation



WinSport cluster

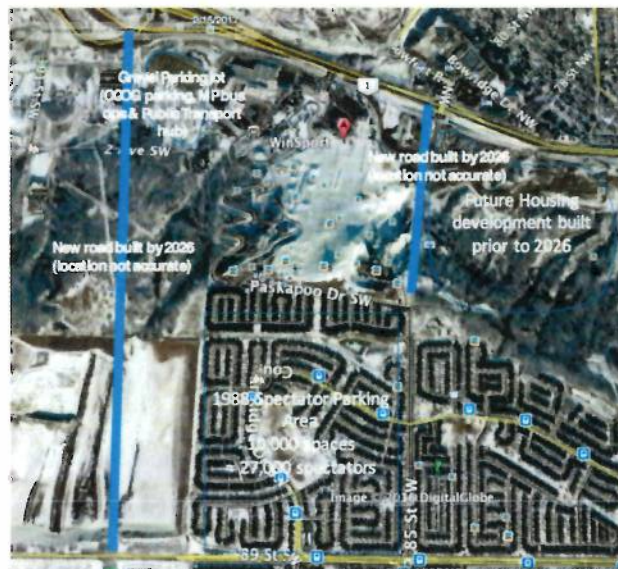
WinSport spectator access will be entirely serviced by public transit in the form of dedicated express buses from the Crowfoot and Westbrook LRT stations to a spectator transit hub at WinSport within walking distance of the events.

Dedicated vehicle access areas for athletes, officials, workforce and volunteers, media and the Olympic family will use all available parking and require one or two new access roads to be built. A conceptual view is shown in Figure 4.25. An Olympic Lane network that aligns with Calgary's future HOV network is recommended to be set up as follows:

- leaving downtown, using 11th and 12th Avenues SW
- continuing west on Bow Trail SW until the West Calgary Ring Road
- West Calgary Ring Road to access point (likely the Valley Ridge Blvd interchange)
- If the West Calgary Ring Road is incomplete, Sarcee Trail could be used

Once the event schedule is determined, a robust traffic management plan will be required.

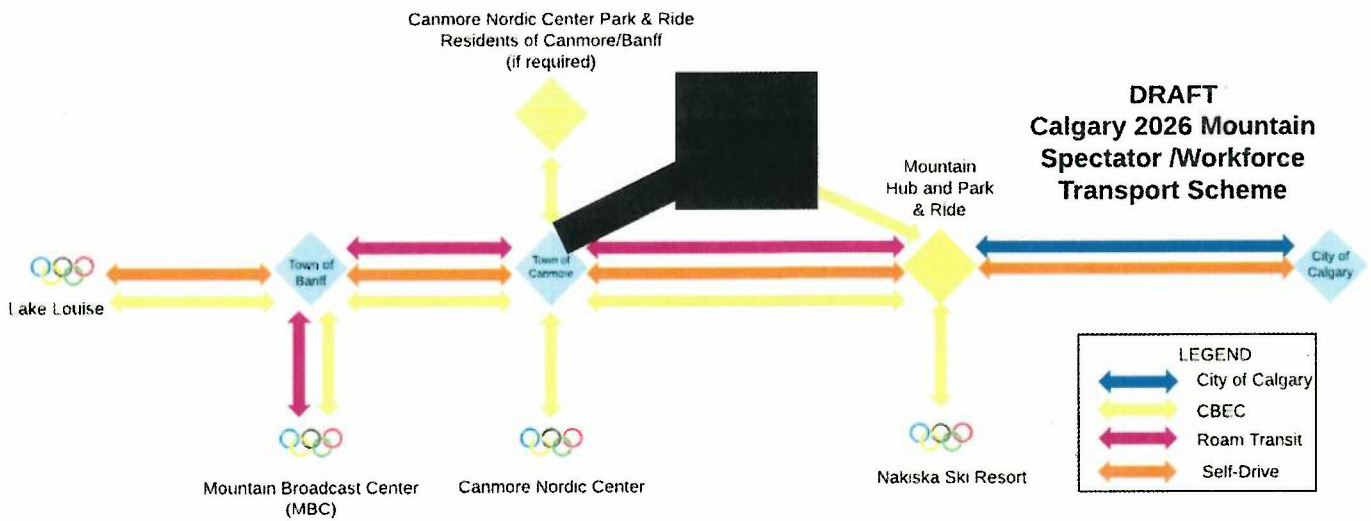
Figure 4.25 WinSport - Transportation



Mountain venues

The plan anticipates that a transportation hub structure will be required to provide access to all of the mountain venues for spectators and workforce originating from Calgary as shown in Figure 4.26.

Figure 4.26 Mountain Transport Scheme



The conceptual Mountain Bus Hub and Park & Ride would be located between Calgary and Canmore. Spectator and workforce access to the hub from Calgary or the mountain towns would be by private car or charter bus.

Transportation from Canmore to the transit hubs may be provided by expanding the services of the existing ROAM Public Transit operated by the Bow Valley Regional Transit Services Commission. Transportation from the hub to the venues would be by Olympic committee-provided buses. Local Canmore spectators for the Canmore Nordic Centre would be bused directly to the venue, bypassing the need to travel east to the Mountain Bus Hub.

A Mountain Bus Hub and Park & Ride allows for a more efficient use of spectator shuttle buses, reducing the vehicular load and impact at each mountain venue as well as reducing the potential environmental impact. This is a common strategy and has been employed at numerous Olympic Winter Games going all the way back to Calgary 1988.

The transportation plan, including the needs of event operations buses, vehicles for the IOC family, parking, loading and staging areas would be refined over time once the event schedules and venue capacities are finalized.

Due to the vehicle movements through the towns of Banff, Lake Louise and Canmore, a local traffic plan will be required to ensure that these operations run smoothly while having minimal impact on the residents and businesses in the area.

Unlike the 1988 Games, all spectators will need to pass through full airport-like security screening and this function may take place at the Mountain Bus Hub to reduce the impact at each venue and provide efficiencies to security agencies.

Of note, if a viable passenger rail system is created serving Canmore, Banff and Lake Louise by 2026, it should be investigated as a transport enhancement for the games. Transportation considerations for the specific mountain venues are as follows:

NAKISKA

The 2026 OPWG spectator and workforce transportation plan will essentially mirror that used in 1988 but scaled up to the forecasted 2026 numbers for people and vehicle movements. Detailed planning will be required during the events to accommodate the bus traffic needed on Highway 40, with 140 buses per hour at peak times. Investigation into lane reversal concepts will also be required.

Three hours is likely needed between events for spectator egress and ingress to the Mountain Bus Hub and Park & Ride.

CANMORE NORDIC CENTER

The Canmore Nordic Centre will be used for Cross Country and Biathlon competitions. The venue can be accessed in different ways through the town of Canmore, however traffic could be combined onto one road (Spray Lakes Road/Three Sisters Parkway/Olympic Way).

All of the existing parking areas at the venue will be required for venue operational and compound space to support athlete, broadcast and media services so the Nordic centre will require the temporary development of land for

Spectator and Olympic bus operations and parking for the Games vehicles. Also, a small Park & Ride facility may be required within the town of Canmore to service those driving from Banff and Lake Louise to alleviate the need for them to travel further east to the Mountain Bus Hub.

Detailed planning will be required during the events to accommodate the estimated bus traffic of 188 buses per hour at peak times. Additional parking space as well as Olympic lanes may be required and will be discussed with Canmore town officials should a bid go forward.

MOUNTAIN OLYMPIC ATHLETES' VILLAGE

The proposed location of the Mountain Olympic Athletes' Village is not finalized and options in the area are under consideration. The village will be the base for all athlete transport operations for the mountain venues and will require a transport mall to connect to the various mountain venues, the City Athletes' Village and the airport. Special arrangements will be required for athlete access to the Opening and Closing ceremonies.

MOUNTAIN BROADCAST CENTER

The Banff Centre is proposed as the Mountain Broadcast Center. It has ample parking and space for transport operations and is easily accessed off the Trans-Canada Highway to Lynx Street to Buffalo Street. It will be the base of operations for media and media transport and as such will require a transport mall and media parking.

LAKE LOUISE

There is currently no public transportation servicing the Lake Louise town site or ski area. Many spectators and workforce will come from Calgary and will self-drive to the Mountain Bus Hub and then be transported by bus to the venue. Should this proceed to a bid, we recommend that the future bid committee investigate the potential for rail options to serve the mountain venues in Canmore and Lake Louise.

A localized bus system will be required for local residents to avoid the need for them to travel east to the Mountain Bus Hub.

Expert resources

The City of Calgary assigned a planning team with experience in major events, including the Calgary Stampede, to evaluate the transport requirements and identify core strategies to ensure a successful transport experience. The City of Calgary was assisted by expert Olympic resources, including:

- Event Management Solutions
- IPS Consulting Limited
- Games Infrastructure Group

If a bid proceeds for the 2026 OPWG, CBEC recommends that detailed transportation planning and engagement be undertaken with Alberta Transportation and Transport Canada.

The complete information and technical data that informed CBEC's analysis transportation requirements can be found in the full transportation report (see *Appendix 4AA*).



SECTION 5. **CAPITAL COSTS SUMMARY**



5.0 OVERVIEW

We completed a comprehensive cost forecasting effort to develop Class 5 concept level cost forecasts (as defined by The City of Calgary’s Estimating and Project Contingency Guidance Document) for the proposed Master Facilities Plan (MFP) concept. The cost forecast exercise was carried out by Calgary cost consultant firms working in tandem with project teams consisting of architectural, engineering and Olympic facilities specialists. The project teams are discussed in [Section 4](#). Further elaboration on the costing methodology is provided in [Section 5.4](#). All costs are in current (2017) Canadian dollars.

The Calgary Bid Exploration Committee (CBEC) Master Facilities Plan team identified three main objectives for the cost forecast:

- 1** Identify the specific investments required to meet the gaps identified in the venue options review process (stage 2 of the MFP process).
- 2** Categorize investments into three broad categories:
 - a. Capital maintenance/lifecycle: These costs are required to extend the useful life of a facility in its current configuration to a period which includes, at minimum, the expected timeframe of the 2026 OPWG. Such costs do not necessarily enhance the facility’s functional use or change physical attributes in a substantial or enhanced way. These are costs that will need to be incurred by venue operators prior to the 2026 OPWG to keep the facility operating in its usual manner whether or not Calgary bids for the Olympics. They are included here in cases where operators do not have confirmed funding for such maintenance.

b. Olympic requirements: These costs are required to modify or otherwise make ready a facility to meet the Olympic requirement (from either a field of play perspective or from an operational/ancillary space perspective) and would only be incurred by venue operators if the Games were staged at the venue. These costs could result in a significant legacy to the facility, sport and/or the community. Costs in this category that result in a significant legacy are highlighted in [Section 4](#).

c. Additional long-term legacy enhancements: These venue improvements would enhance the facility from its present state or configuration and thus provide incremental and long-term benefit to sport, venue operators, recreational users and the community at large (locally, provincially and nationally) be it from a social, sport or economic perspective. This cost category may be undertaken in conjunction with one or both of the aforementioned categories (capital maintenance/lifecycle and/or Olympic requirements) and possibly result in lower costs than if undertaken on a stand-alone basis. These additional investments are not required to host the Games and should be considered regardless of whether the Games are hosted.

- 3** Identify a range of investments, including low, medium and high cases. These options were reviewed by the CBEC Master Facilities Plan Subcommittee. A “Representative Case” investment program is being put forward that balances legacy objectives with financial discipline and reasonably represents its view of a feasible and prudent sport and associated facility configuration and composition and the related 2026 Olympic capital costs. A number of legacy enhancements were considered worthy of consideration but were excluded from the representative case, recognizing the need to ensure a financially prudent concept. These additional considerations can be found in the Venue Reports contained in *Appendixes 4H – 4V*.

The cost forecasting provided an overall forecast of capital investments required to host the 2026 Olympic and Paralympic Games – a forecast Olympic capital budget. The Olympic capital budget is made up of two main components:

- Sport and media venue investments
- Athletes’ villages and accommodation investments

Figure 5.1 Olympic Capital Budget

Category	Forecast capital cost (in '000s)
Sport and media venue investments	\$392,000
Athletes' villages and accommodation investments	\$399,000
Total	\$791,000

The cost shown for athletes' villages and accommodation investments represents a forecast of the net investment or capital cost contribution to the villages and accommodation investment necessary to make such concepts economically viable. These villages and accommodation concepts are outlined in more detail in [Section 5.2](#). The accommodation investments are required to make up a shortfall of available hotel rooms and other forms of accommodation necessary to host the Olympic and Paralympic stakeholders, Games workforce and security.

In addition to the Olympic capital budget estimate, we have also summarized the prospective investments by other parties, a key element in our proposed MFP concept (see Figure 5.2). As part of the process to develop the MFP, we engaged stakeholders to understand what investments are likely to occur prior to 2026 and would be relevant to the venue needs for hosting the Games. Our proposed MFP relies on the finalization and delivery of those investments, which are at various stages in the planning, approval and funding process. Changes to the proposed MFP and related Olympic capital budget estimate may result if these investments are not undertaken.

Figure 5.2 Prospective Non-Olympic Investments

Prospective Non-Olympic Investments (MFP Concept is subject to the following investments being undertaken - in '000s)					
Cluster	Venue	Project/Upgrade	Estimated Investment	Potential Source of Funding	Status
Sport & Media Venues					
Stampede Park	BMO	Hall F	\$45,000	Local, provincial and federal government	Funding discussions underway
	New Event Centre	18,000 seat arena	TBC	TBC	Negotiations in Progress
WinSport	Sliding Track	Revitalization	\$20,000	Province and Federal Infrastructure Funds	50% of funding confirmed
University	Fieldhouse	9,000 seat arena	TBC	TBC	TBC
Mountain	Canmore Nordic Center	Upgrade to biathlon & x- country	\$10,000	Government of Alberta	Design underway. Funding Submission fall 2017
Villages & Accommodation					
City	Calgary Athletes' Village	Site Servicing and Development	\$24,000		

5.1 SPORT AND MEDIA VENUES

Figure 5.3 summarizes the recommended investment program proposed to support the Master Facilities Plan and is designed to balance legacy objectives while ensuring a financially prudent bid. The investments are summarized by venue and allocated under the three broad categories described above. The estimated capital maintenance cost to revitalize the key venues from the '88 Games is estimated at \$42 million; these costs will need to be incurred in the next ten years, irrespective of a decision to advance a bid. The estimated overall investment requirement for the sport and media venue portion of the MFP is \$392 million, representing the most significant part of the Olympic capital budget.

Figure 5.3 Sport and Media Venues – Recommended Investments

Master Facilities Plan Sport and Media Venues - Recommended Investments (Estimated Cost of Investments - in '000s)						
Cluster	Venue	Sport/ Intended Use	Capital Maintenance	Olympic Requirement	Legacy Enhancement	Total
Stampede Park	New Event Centre	Hockey 1				
	Corral	Hockey 2		\$18,884		\$18,884
	Saddledome	Figure Skating & Short Track, Speed Skating		\$9,520		\$9,520
	Grandstand	Opening and Closing Ceremonies and Daily Live Site		\$25,055	\$1,000	\$26,055
	BMO	IBC/MPC	\$3,534	\$75,218		\$78,752
	Agrium	Figure Skating Training		\$1,273		\$1,273
WinSport	Sliding Track	Sliding Sports	\$8,940	\$9,922	\$813	\$19,675
	Ski Hill	Moguls, Aerials, Halfpipe, Slopestyle, Big Air	\$162	\$26,009	\$16,510	\$42,681
	Ski Jump	Ski Jumping, Nordic Combined		\$60,590	\$10,142	\$70,733
University of Calgary	Olympic Oval	Long Track Speed Skating	\$29,386	\$6,736	\$14,082	\$50,203
	Fieldhouse	Curling		\$11,590	\$5,914	\$17,505
Mountain	Canmore Nordic Center	Cross-Country and Biathlon		\$7,453		\$7,453
	Nakiska	PGS, Ski Cross, Snowboard Cross, Slalom, Giant Slalom		\$25,058	\$3,002	\$28,060
	Lake Louise	Downhill, Super G, Combined		\$21,029		\$21,029
Total Sport and Media Venues			\$42,022	\$298,337	\$51,463	\$391,822

* Note: Totals may not match due to rounding.

The cost forecasting identified a range of investments, from a low case (minimum required), to a medium case (more extensive revitalization and legacy investments), to a high case (substantive rebuilds of some facilities). The investment profile for the three cases is outlined in Figure 5.4. Highlights include:

The proposed capital maintenance program is largely consistent with a medium case investment level.

- ▀ The low case was not recommended because it would not provide for a significant extension of the useful service life of key venues, including the Olympic Oval and WinSport.

■ The Olympic requirements are relatively constant throughout, with minimal differences in proposed investment between the low, medium and high case.

■ The major differences arise in the potential for enhanced legacy investment, reflecting the myriad opportunities to improve the community and sport legacy of facilities.

The representative case includes legacy enhancements at the Olympic Oval and WinSport as well as a minor legacy enhancement at Nakiska. Several legacy investments in the medium case were considered worthy of consideration and, if additional funding is available, could be prioritized for future consideration. These include, but are not limited to:

- Enhanced dry land training and kinesiology space at the Olympic Oval
- Enhanced day lodge redevelopment at Nakiska

Figure 5.4 Sport and Media Venues – Range of Potential Investments

Master Facilities Plan Sport and Media Venues Range of Potential Investments - in '000s				
	Capital Maintenance	Olympic Requirement	Legacy Enhancement	Total
Low Case	\$13,615	\$298,336	\$23,335	\$335,286
Medium Case	\$42,513	\$299,067	\$109,434	\$451,413
High Case	\$42,513	\$293,748	\$287,640	\$623,901
Representative Case	\$42,022	\$298,337	\$51,463	\$391,822

* Note: Totals may not match due to rounding.



5.2 VILLAGES AND ACCOMMODATION

The underlying strategy of the athletes' villages and accommodation concepts described in [Section 4](#) is to leverage the Olympic and Paralympic requirement for new housing to address the critical need for affordable housing options for those in lower income brackets, including families, seniors and students. It is anticipated that Calgary will have an ongoing need for affordable housing that addresses the full range of housing types, needs and income levels through to 2026 and beyond. The range of housing options proposed would include single occupancy, family, supported and subsidized seniors housing, student residences and attainable home ownership opportunities.

The proposed athletes' villages and accommodation programs must generate sufficient incremental housing to meet the needs of the athletes (6,000 beds) and to overcome the projected shortfall in hotel room capacity (over 3,000 rooms) in Calgary in 2026. The scope of development required is significant, as described in [Section 4](#). The private sector would undertake virtually all development activity, apart from the fully affordable housing unit program, which is typically delivered by the City or in partnership with non- governmental organizations.

Using private sector partners and retaining an element of market housing in the larger developments will enable a significant share of the funding costs to be borne by the private sector and reduce overall Olympic capital cost requirements. At the same time, including non-market housing types supported by the Olympic capital budget and existing government programs reduces the overall risk of the development programs and meets our social sustainability goals of ensuring the Games have a strong inclusive legacy.

The housing developments need to be delivered on a "just in time" basis; they will have to be completed and handed over to the Olympic and Paralympic Organizing Committee in mid- to late 2025. It is not possible to complete and occupy the developments earlier (with the possible exception of the student residences), because it would require

temporary displacement of residents for a two- to eight-month period. The longer period reflects the more extensive preparations necessary for an athletes’ village.

The building program, summarized in Figure 5.5, would represent a strong economic generator for Calgary and the mountain region with a combined investment of approximately \$1.2 billion. Roughly 15 per cent is expected to be funded by government programs for affordable housing, 70 per cent by the private sector and 15 per cent by the Olympic capital budget.

Figure 5.5 Villages and Accommodation – Recommended Investments

Villages and Accommodation		Recommended Investment			Funding Sources			
		Olympic Requirement	Legacy Enhancement	Total	Government Funded Programs	Developer and Mortgage Financed	Olympic Capital Budget	
Calgary	City Athletes’ Village	Athletes’ Housing	\$55,000	\$388,000	\$443,000		\$388,000	\$55,000
	Affordable Housing Projects	Media Housing	\$14,000	\$181,000	\$195,000	\$181,000		\$14,000
	Subsidized Seniors Housing Projects	Security and Workforce Housing	\$28,000	\$97,000	\$125,000		\$97,000	\$28,000
	Student Residence Projects	Media, Security and Workforce Housing	\$23,000	\$70,000	\$93,000		\$70,000	\$23,000
Subtotal - Calgary			\$120,000	\$736,000	\$856,000	\$181,000	\$555,000	\$120,000
Mountains		Athletes’ Housing	\$41,000	\$259,000	\$300,000		\$259,000	\$41,000
Total Villages and Accommodation Housing			\$161,000	\$995,000	\$1,156,000	\$181,000	\$814,000	\$161,000

5.3

OLYMPIC CAPITAL BUDGET

The forecast Olympic capital budget including contingencies is an estimated \$1,145 million, with \$450 million for sport and media venues, \$100 million for security and \$460 million for villages and accommodation plus \$135 million in sustaining capital. The cost forecasts for the venues are Class 5 estimates based on the scope of requirements and expected future conditions as currently understood. Each individual project cost estimate includes a 10 per cent design phase contingency and a 5 per cent construction phase contingency. The contingencies included reflect the professional judgment of experienced architecture, engineering and cost consulting firms with specific experience in these types of projects. The cost consultants advise that the accuracy of their estimate is approximately plus 30 per cent to minus 20 per cent.

The contingencies outlined above are related to the known scope of the projects analyzed and do not include a contingency or allowance for scope changes that may arise as the planning for the Games progresses. As such, CBEC recommends that a \$100 million capital reserve be included within the overall budget to reflect the uncertainties inherent at this stage of the planning process, nine years prior to the Games, and to ensure the overall funding arrangements negotiated with senior governments include some flexibility to deal with changes in scope and program that may arise, including:

- The potential for future scope changes during the international bid and organizing phase as progressively more detailed plans and agreements are developed, including possible changes to the representative MFP, with input from Olympic and Paralympic stakeholders, government, national sport organizations and venue operators.
- Changes that may arise through the design, permitting and detailed environmental review process that would commence during the international bid phase.

5.4 COST FORECAST METHODOLOGY

The capital cost forecasts were prepared by experienced architecture, engineering and cost consulting professionals with knowledge of conditions in the Calgary and Bow Valley Corridor construction industry as well as the specific venues being reviewed. CBEC engaged three of Calgary's cost consulting teams to work with our project teams on costing the sport and media venues. We also contracted a leading development project management company to assist with the cost forecast and analysis of the villages and accommodation program. This process is described in more detail in [Section 4](#) in discussion of the MFP process framework.

The cost consultants worked with the project teams, including architects and engineers, to assess the scope and cost of the major elements for each venue project. The construction cost forecasts are based on a combination of industry norms, elemental cost buildups, real-time experience on current jobs and other authoritative sources and industry bodies. The base construction cost elements were then factored up to include the following cost components:

- Construction management or general contractor fees and expenses.
- Design contingency (10 per cent) and construction contingency (5 per cent) allowances.

A comprehensive range of design, project management and administration costs including architectural,

- engineering, project management, permitting, legal, development levies, furniture, fixtures and equipment and other administrative costs.

- Land costs for the villages and accommodation program.

Our project teams workshopped the scope, design and cost findings extensively to ensure completeness, accuracy and consistency.



SECTION 6.

GAMES OPERATIONS: COSTS AND FUNDING





6.0 SUMMARY

Reviewing the costs and revenues associated with Games operations is a core part of answering whether hosting the 2026 Olympic and Paralympic Winter Games (OPWG) is feasible in Calgary, and directly answers whether the Games operations can yield a financially acceptable outcome.

Our financial estimates to date suggest revenues from a prospective 2026 OPWG of approximately C\$2,190 million and costs of approximately C\$2,380 million yielding an estimated financial deficit of C\$190 million. In addition, we have included a 10 per cent contingency worth approximately C\$235 million yielding an estimated total deficit of C\$425 million. The use of the contingency reflects both the level of diligence and work put into the estimate, but also the recognition of uncertainty still remaining.

While our current estimates suggest an estimated operations deficit, we believe there are several potential avenues that could eliminate the operations deficit. These avenues are being actively pursued and will be reflected in our base budget once there is additional certainty about the impact each would have. Avenues being pursued include, but are not limited to:

- Discussing opportunities to otherwise increase the International Olympic Committee (IOC)'s financial contribution, or a corresponding decrease of obligations to a prospective Organizing Committee for the Olympic Games (OCOG).

- Working with the Canadian Olympic Committee (COC) to develop a new and innovative approach to a domestic sponsorship program that would allow Calgary to exceed the sponsorship revenue seen at the 2010 Games while respecting the COC's existing sponsorship agreements with corporate partners.

Reviewing certain technical requirements that exist in the 2024 host city contract with the IOC to identify opportunities to selectively waive or otherwise relax operational requirements and service levels and therefore

- lower overall costs. Potential areas for discussion include power redundancy requirements that would seem unnecessary in a Calgary urban environment, a potential adjustment to IOC service providers to have more certainty regarding costs related to broadcast and timing and results, and “rate card” recovery.

We believe the opportunities above could close the estimated deficit of C\$190 million and begin closing the deficit including contingency.

In reviewing Games operations, it is important to understand they involve a multitude of stakeholders beyond a prospective Calgary OCOG including the:

- International Olympic Committee (IOC)
- Canadian Olympic Committee (COC)
- International Paralympic Committee (IPC)
- Canadian Paralympic Committee (CPC)
- The Olympic Partners (TOP) – the IOC’s global sponsors
- The COC’s domestic sponsors
- The domestic broadcast partner
- The federal government
- The provincial government
- Municipal governments (in Calgary and Bow Valley Corridor)

6.1

OVERVIEW OF GAMES OPERATIONS

6.1.1 OVERVIEW OF CURRENT GAMES OPERATIONS

Based on the current structure of Games operations, if Calgary were to bid and be awarded the 2026 OPWG, several parties would be involved. In addition to groups and stakeholders engaged in the preparation of this report (as outlined in [Sections 2](#) and [3](#)), the following parties would be key players in the planning, hosting and operation of this major event:

International Olympic Committee:

The rights holder who ultimately awards the right to host the Games to the chosen city within their prescribed criteria. A prospective Calgary OCOG would receive a financial contribution from the IOC to stage the Games, as well as knowledge transfer and sponsor introductions and integration.

As the IOC provides the largest source of funding for the planning and staging of the Games, we have provided more background information on this party than others within this Games operations overview section.

The IOC is entirely privately funded and generates revenue through several sources including the sale of broadcasting rights, the worldwide The Olympic Partners (TOP) sponsorship program and the IOC official supplier and licensing program. For the 2013-2016 quadrennial, the IOC's estimated total revenue was US\$5.6 billion, an increase of 6.2 per cent compared to the 2009-2012 period. The main reasons for the increase were related to television broadcast rights (increase of 7.1 per cent) and an increased level of interest in the TOP program of worldwide Olympic sponsors (increase of 7.6 per cent).¹

¹ IOC Annual Report 2015, page 127 (see Appendix 6A: IOC Annual Report 2015)

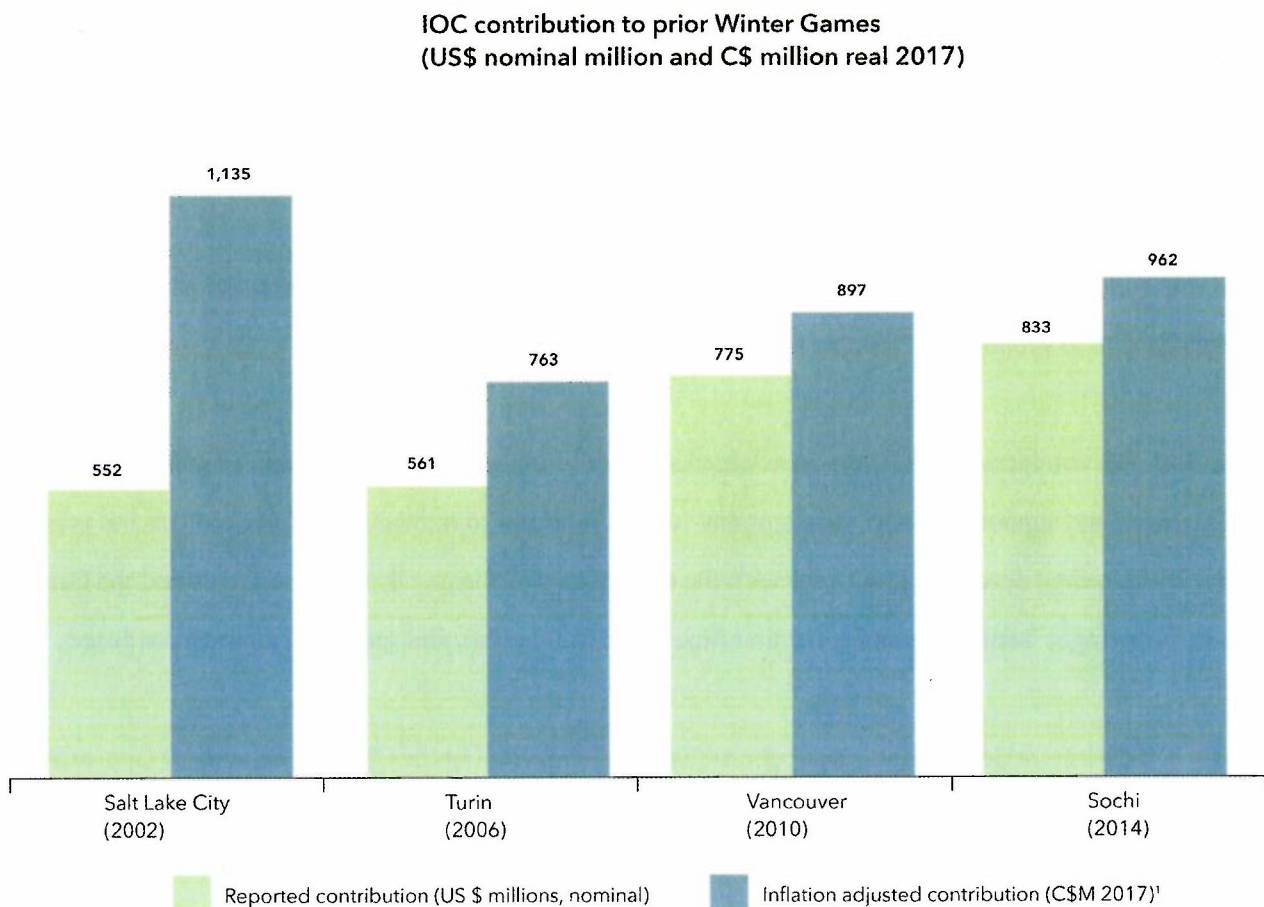
The IOC's primary areas of revenue distribution are:

- Funding to support of the staging of the Olympic Games (to OCOGs).
- Funding to support the staging of the Youth Olympic Games (to YOCOGs).
- To National Olympic Committees to help them support their athletes at national and local levels and to assist in getting athletes, coaches and support staff to the Olympic Games to encourage universality.
- To International Federations to run and promote their sports globally.
- To the promotion of the worldwide development of sport (including to International Federations, World Anti Doping Agency, and the Court of Arbitration for Sport).
- To the worldwide promotion of the Olympic Movement (including the Olympic Foundation for Culture and Heritage and to support the Olympic Channel).
- To “Olympic Solidarity”, an IOC program which supplies funding to help promote universality of the Olympic Movement and support for sport development, such as subsidies to individual athletes and coaches primarily aimed at assisting developing countries with the costs of organizing an Olympic team to attend the Games, (e.g., the Refugee Team featured for the first time at the Rio Games), and sport development for peace².
- To IOC activities to develop sport and operational costs of governing the Olympic Movement (approximately 10 per cent of revenue).

² Ibid, page 18. Olympic Solidarity's quadrennial budget for 2013-2016 is USD \$439,870,000, a 40 per cent increase over the previous four-year cycle. (see *Appendix 6A: IOC Annual Report 2015*)

The IOC contributes funding to support the staging of the Summer and Winter editions of the Games. This support includes direct contributions to the OCOGs and various forms of Games support to the OCOG which may be provided through value-in-kind allotments including through its “Transfer of Knowledge” programs (e.g., the host broadcasting operator). The OCOGs also raise additional revenue through domestic commercial activities facilitated by the authorised use of the Olympic marks together with the OCOGs symbols (which includes domestic sponsorship and merchandising and licensing). For reference, the IOC’s contributions to recent past Olympic Winter Games are set out below:

Figure 6.1 IOC contribution to prior Olympic Winter Games



1. Contributions converted using exchange rates for year of Games and then inflated to 2017

Source
IOC AUDITED FINANCIAL STATEMENTS, QUOTED IN IOC ANNUAL REPORT 2015,
PAGE 130 (SEE APPENDIX 6A: IOC ANNUAL REPORT 2015)

Canadian Olympic Committee:

As Canada's National Olympic Committee, the COC has the sole authority from the IOC to promote the Olympic Movement in Canada and access the Olympic rings for use and licensing within the country. The COC is a privately funded, not-for-profit organization that receives its revenue primarily from its domestic marketing partners (sponsors), interest accrued from legacy funds remaining from the 1988 Calgary Olympic Winter Games, and various other grants and donations. A prospective Calgary bid would need the approval and support of the COC to proceed, and should a Calgary bid win, the Calgary OCOG would be integrally intertwined with the COC for the seven years leading into the staging of the Games. This relationship exists for practical reasons as well as by the IOC legal agreements. These agreements are the host city contract, which stipulates that a joint marketing partnership agreement must be entered into between the COC and any prospective OCOG, which would bind the COC and a prospective Calgary OCOG to act in a coordinated fashion, and enable the COC to have direct participation as part of all Calgary OCOG operations. This participation would include incorporating a certain number of representatives on a prospective Calgary OCOG Board and potentially also supplying key staff positions within a prospective Calgary OCOG, as two examples.

By entering into the joint marketing partnership agreement, the COC and a prospective Calgary OCOG would negotiate a wide variety of protocols (including sponsorship sales, servicing, communications, and marketing) to clearly delineate which entity in Canada would be selling or otherwise representing rights for third parties to license the trademarks of the COC and the Games. The terms of the joint marketing partnership agreement also dictate how revenues associated with a Calgary Games would be split between the COC and Calgary OCOG. For the Vancouver 2010 Games, it was agreed that rights to the Canadian Olympic Team would be bundled with rights to the Vancouver Games and sponsorship sales and licensing was conducted on that basis.

International Paralympic Committee:

A prospective Calgary 2026 OCOG would also have to meet operational requirements related to hosting the Paralympic Games portion of this major event. The IOC and IPC have a long-term agreement in place that grants all voting rights and requirements to the IOC in exchange for a "buy-out" of Paralympic rights. An OCOG is required to make a payment to the IPC for the right to host the Paralympic Games.

Canadian Paralympic Committee:

The CPC is recognized by the IPC as the National Paralympic Committee in Canada and, as such, has the responsibility to develop and protect the Paralympic movement in Canada, which CPC does by being a member of any Canadian OCOG. The CPC is required by IOC candidature guidelines to provide various guarantees and representations of support for a prospective Calgary OCOG.

The Olympic Partners (TOP):

These are sponsors who sign contracts directly with the IOC to obtain the exclusive right to worldwide Olympic marketing rights. If a prospective Calgary 2026 OPWG bid were successful, these sponsors would take an active interest in and place investments in Calgary, Alberta and Canada to activate their Olympic marketing rights, to draw attention to their brands and to leverage their Olympic investment. Examples of Canadian Games-specific TOP marketing investments from the Vancouver 2010 Games included the cross-Canada Olympic Torch Relay, the Cultural Olympiad, Indigenous arts and culture exhibits and festivals, and increased sponsorship of Canadian athletes and sport organizations. A prospective Calgary OCOG would have corresponding obligations to support and service these partners in everything they do in Canada relative to the Games, such as identifying and securing suitable accommodations, meeting with their marketing teams to encourage Canadian-specific investments in OCOG programs, and generally coordinating all elements of their investment in and participation in the 2026 OPWG. Current Worldwide Olympic Partners of the IOC are shown in Figure 6.2.

Figure 6.2 Worldwide Olympic partners of the IOC



Source
[HTTPS://WWW.OLYMPIC.ORG/SPONSORS](https://www.olympic.org/sponsors) (SEE ALSO APPENDIX 6B:
 WORLDWIDE OLYMPIC PARTNERS OF THE IOC) (ACCESSED JUNE 30, 2017)

COC Domestic Partners:

These are the sponsors who sign contracts directly with the COC to obtain the exclusive right to Canadian Olympic marketing rights, generally focused on the Canadian Olympic Team at the Games. The Calgary OCOG's obligations to the COC Domestic Partners are generally the same as with TOPs, but typically with an increased level of involvement being representatives of Canada's top companies with an active interest in ensuring their OPWG investment provides meaningful return on investment. Figure 6.3 outlines the current Canadian domestic sponsors of the COC.

Figure 6.3 Current Canadian domestic partners of the COC



Source
[HTTP://OLYMPIC.CA/PARTNERS/](http://olympic.ca/partners/) (SEE ALSO APPENDIX 6C: CURRENT CANADIAN DOMESTIC PARTNERS OF THE COC) (ACCESSED MAY 11, 2017)

Domestic Broadcast Partner:

This is the party who wins the right to be the exclusive broadcaster of the 2026 OPWG by paying a rights fee to the IOC. In exchange, the domestic broadcast partner obtains the obligation of broadcasting the Games in full on both traditional and online (and emerging technology) platforms, with the right to sell broadcast advertising to all interested parties – but primarily focused on TOP and COC domestic partners who receive a right of first opportunity to negotiate. If a meaningful partnership can be established early on between the Calgary OCOG and the domestic broadcast partner there is the opportunity for additional revenue for the Calgary OCOG and Canadian sport at large by having sponsors promote Canadian programs, Calgary OCOG programs, athletes and sport organizations that are then the subject matter of the broadcast advertising. An example from the Vancouver 2010 Games was RONA's investment in Indigenous training and employment opportunities that assisted RONA in building the Richmond Olympic Oval.

Federal/Provincial/Municipal Governments:

As funding, support and essential services to deploy the Games may be provided by all three levels of government, these are all entities with whom a Calgary OCOG would need to work with closely. This may include having representatives of the three levels of government serve as active members of the Calgary OCOG Board and overlap or provide participation for certain staff and management functions. A high level of coordination is required between a prospective OCOG and all three orders of government. If meaningful partnerships can be established early on, often at the bidding phase, then mutual goals and objectives of each level of government can be harmonized with the prospective Calgary OCOG to leave a material impact on the city, province and country. It is critical to note that separate funding agreements would need to be negotiated with each level of government to successfully stage and support the 2026 OPWG.

CBEC has engaged with Sport Canada's lead staff who administer decisions of the elected officials and operate pursuant to the Hosting Policy. Coordination with all levels of government would be critical in the bidding, staging and hosting of the 2026 OPWG, but perhaps the earliest discussions would need to occur with the Government of Canada who would be required to provide essential federal services in a variety of areas, such as:

- Security

- Public health and safety

- Radio spectrum management

- Taxation:
 - Customs, duties, GST, and excise tax (full or partial duty and tax relief for goods temporarily imported for the Games)

 - GST on value-in-kind donations

 - Withholding taxes on international payments

 - Goods brought in for sale/equipment left behind (dissolution plans)

 - Entry and exit of goods

 - Border security/customs

 - Anti-doping requirements

 - Firearms

 - Team doctors with medical equipment and pharmaceuticals

 - Plants, specialized foods

- Entry and exit of people:
 - Foreign workers (i.e., reviewing labour market opinions (LMO) and work permits)
 - Accreditation
 - Arrival and departure planning
 - Transportation planning

- Weather forecasting and environmental issues

In the earliest stages of working with the federal government there would also be a need to clearly define Calgary's vision and goals for hosting a prospective 2026 OPWG. The federal government, before considering a funding application for a International Major Multisport Games (IMMG), would want to ensure the vision for the Games aligns with the Government of Canada's mandate of supporting IMMGS and other sporting events when they aim to produce sustainable sport, social, cultural, economic and community benefits for Canadians.

Through discussions with staff at the provincial and municipal levels, CBEC has learned a similar level of alignment and discussion of requirements would likely be required. The roles and funding arrangements described above reflect the current structure of Games-related operations. While we recognize that these relationships may evolve between now and 2026, we have assumed that a similar dynamic will continue to be at the foundation of Games operations for a prospective 2026 OPWG.



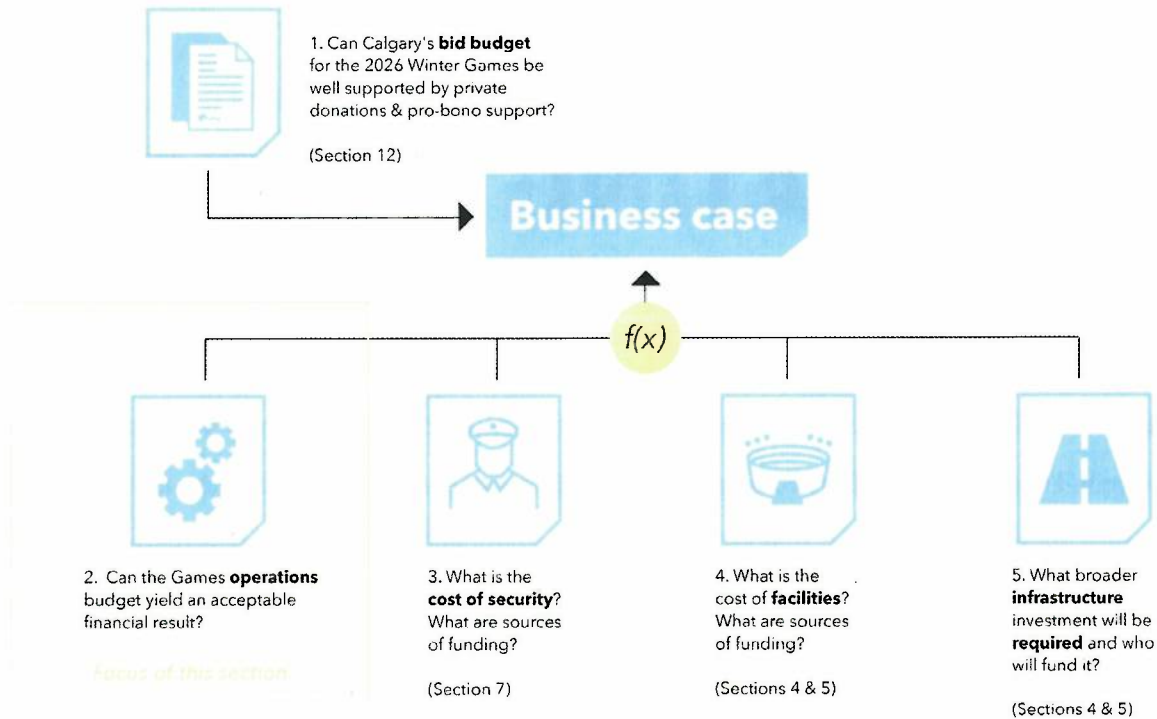
6.2 OPERATING COSTS

6.2.1 CONTEXT

Games operations represents one of the five major cost groups that together form the overall business case for the Games as shown in Figure 6.4 below. Figure 6.4 represents the elements that, in aggregate, shape the overall business case for the Games from bidding through to hosting. In addition, consideration is given to how the 2026 Games could create a meaningful legacy within each of these five elements. As a result, legacy is not shown as a distinct element but is rather integrated into each specific element.

At a high level, the Games operations budget (item 2 in Figure 6.4) covers the period from the moment a city is chosen to host and when the Organizing Committee for the Olympic Games is formed, through to the end of the Games. In the case of the 2026 Games, the Games operations budget would cover a period running from the second half of 2019, when the host city election is anticipated, through late 2026 and into 2027 and 2028 when the OCOG is wound up and Olympic-specific activities have ended.

Figure 6.4 Overview of key elements of the overall Games business case



6.2.2 OVERALL METHODOLOGY AND APPROACH

A robust methodology and approach were followed to develop our operating cost and revenue estimates for the 2026 Games, and to determine whether successful, fiscally responsible games are feasible in Calgary. Key elements of our approach were to:

▀ Benchmark past Olympics across each cost and revenue category.

This work focused on creating a comprehensive fact base of all revenue sources and cost categories of past Games using publicly available information (including Official Games reports, media publications and bid books) to contextualize our estimates. In addition, the benchmarking also looked at estimated revenues

and costs from the 2018 and 2022 Games (to be held in PyeongChang and Beijing respectively) to understand how revenues and costs have been considered for upcoming Games.

■ **Review detailed Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) revenues and costs, and adjust for currency and inflation plus Calgary's context.**

As part of this work, VANOC operating revenues and costs were reviewed in detail to identify Calgary-specific changes that could be realized such as lower transportation costs. Additionally, this review of VANOC's revenues helped identify other opportunities that could be pursued in a Calgary context based on learnings from the 2010 Games and other global events.

■ **Hold workshops with Olympic experts and external parties.**

Throughout the process, we sought input from Olympic experts to better understand cost and revenue opportunities. We held workshops with former VANOC executives and the COC to better understand the factors that shaped VANOC's costs and revenues as well as the learnings from their experience that could be applied to a possible Calgary Games. We engaged with members of the COC Board and executive who were a part of the Vancouver Games and the post-Vancouver Games period. We also met with IOC personnel and received guidance on the IOC's current estimated contribution to a 2026 Games revenue, on other financial aspects of hosting the Games, and on the impact of Agenda 2020 as it relates to both bid and operations costs.

■ **Leverage the Boston Consulting Group's worldwide network to validate assumptions with external experts.**

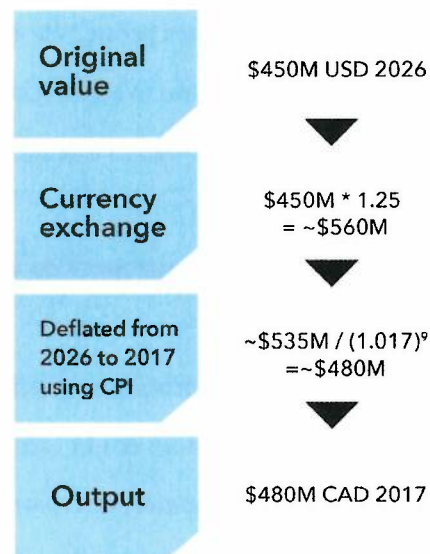
We met with Canadian sports executives, modular housing providers, and developers – each of these parties provided input and guidance that helped refine specific portions of our estimates. These meetings also provided a source to validate core assumptions and opportunities. BCG teams that have supported past bids or host cities helped to identify best practices in developing a budget at this early stage in the process, to capture learnings from past Games, as well as to understanding the impact of recent changes in the Olympic Movement (e.g., Agenda 2020).

In addition to the items outlined above, bottom-up analyses was undertaken where feasible within CBEC's timeframe and scope to develop revenue and cost estimates based on Calgary-specific information. For example, ticketing revenue was estimated bottom-up using the proposed Master Facilities Plan concept, an estimated event schedule for the 2026 Games and inputs from VANOC's experience.

To remove the impacts of currency and inflation, all figures arrived at as part of our analysis were inflated or deflated to 2017 Canadian dollars (C\$ million 2017). We used historical and estimated rates for the Canadian and US dollars and the Canadian Consumer Price Index (CPI) from the Economist Intelligence Unit to make these adjustments. Over the 2017-2026 period, the CAD/USD exchange rate averages 1.25 CAD per USD, and Canadian CPI is estimated to average 1.7 percent over this time period. Where currency exchange was applied, revenues or costs were converted to CAD in the year incurred, then inflated or deflated using CPI. See Figure 6.5 for an example of this calculation.

Figure 6.5 Adjusting costs for foreign exchange and inflation

Example: Adjusting IOC broadcast contribution from 2026 USD to 2017 CAD



6.2.3 REVENUE AND COST ESTIMATES

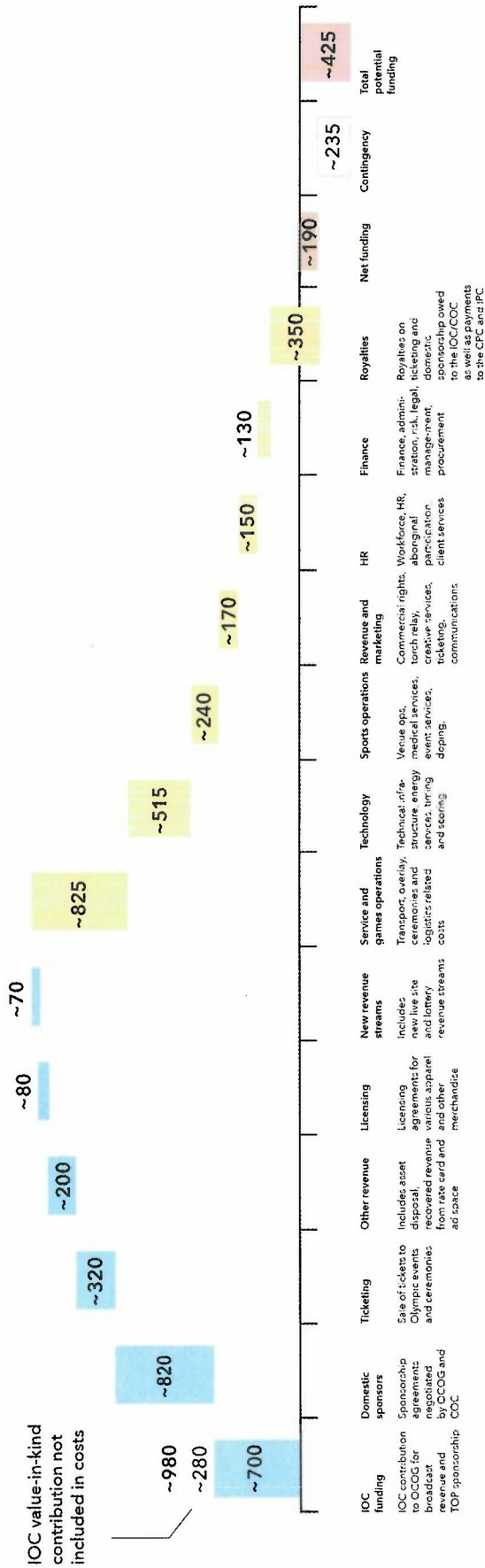
Using this approach, Figure 6.6 outlines – at a high-level – revenue and cost estimates for the 2026 Games. Our financial model estimates revenue at approximately C\$2,190 million and operating costs at C\$2,380 million, leaving an operations deficit of approximately C\$190 million before contingency as shown in Figure 6.6. To reflect both the level of diligence and work put into the estimates as well as the uncertainty in any estimate, a contingency of C\$235 million, equivalent to approximately 10 per cent of the estimated costs, has been included in our analysis. Including the full amount of this contingency, the operations deficit would total approximately C\$425M.

Revenues are driven by budget relieving IOC funding (C\$700 million), domestic sponsorship (C\$820 million) and ticketing (C\$320 million) while costs are driven by service and games operations (C\$825 million) and technology (C\$515 million).

Figure 6.6 Summary of operations revenue and costs

Operating revenues and costs (C\$M real 2017)

Revenue: ~C\$2,190M Operating costs: ~C\$2,380M



Note: Totals may not add due to rounding

Source: VANOC FINANCIAL STATEMENTS, WORKSHOPS WITH OLYMPIC EXPERTS, BCG ANALYSIS

As part of our analysis, we have also estimated the approximate timing of these revenues and costs. The estimated timing of revenues and costs is based on a review of business plans for the 2010 Games and benchmarking of estimated cash flows from other past bid cities. Approximately 70 to 75 per cent of costs and revenues are accordingly estimated to be incurred and received in the year prior to the Games and the year of the Games (2025 and 2026 in the context of CBEC's exploration). See Figure 6.7 for additional detail.

Figure 6.7 Breakdown of operating costs and revenues by year incurred



Source
VANOC FINANCIAL STATEMENTS, WORKSHOPS WITH OLYMPIC EXPERTS, BCG ANALYSIS

6.2.4 OPERATING COSTS METHODOLOGY AND APPROACH

Our cost estimates reflect detailed work to review VANOC's detailed financial information to provide diligence, depth and accuracy to our work. Detailed analysis of VANOC's costs for all major Games elements identified differences between Calgary's and Vancouver's unique contexts. This review leveraged the insights of Olympic experts, conducted bottom-up analysis for select line items and incorporated learnings from past Games as outlined in [Section 6.2.1](#).

That analysis identified approximately C\$175 million in comparably lower costs for the Calgary context. For example, moving Park & Ride locations closer to alpine venues and hosting more events in Calgary is estimated to reduce the number of spectator buses required and, accordingly, related costs. [REDACTED]

[REDACTED] In this way, C\$20 million less (or a 20 per cent reduction) is projected in bussing costs, compared to the Vancouver Games.

The C\$175 million in identified savings represent approximately 18 per cent of the costs an OCOG has significant influence on and can reduce (which total approximately C\$1,000 million). The remaining costs are not fully controllable and reductions are constrained by:

- The operational requirements outlined in the host city contract
- The scope of the Games,
 - Services provided exclusively by The Olympic Partner (TOP) Programme (e.g., timing and scoring provided by Omega); and
- Royalties.

The lower cost estimates identified, however, are offset by approximately C\$185 million in cost increases.

Among these increases is an increase in the amount payable to the COC under a joint marketing program agreement.

This agreement, which covers the seven years before the Games through the year after the Games, defines how sponsorship and licensing revenue is shared between the COC and an OCOG. Historically, the intent has been to maintain the COC's sponsorship and marketing revenue at pre-OCOG levels. While we recognize that the payments under this agreement would be subject to negotiation if Calgary chooses to proceed, we have assumed that the COC's sponsorship revenue remains at levels similar to those over the last four years resulting in the C\$140 million cost increase relative to Vancouver.

6.2.5 KEY COST CATEGORIES

Based on our detailed research as summarized above, **operating costs for the 2026 Games are estimated to total C\$2,380 million**, largely driven by service and Games operations, technology and royalty costs. Key cost categories are broken down as follows:

- Approximately C\$825 million for service and Games operations which includes:
 - Transportation for athletes and operations of the Park and Ride system to and from mountain venues;
 - Overlay at venues including temporary scaffolding, lighting, some temporary seating, and fencing;
 - Costs for staging the Games' opening and closing ceremonies;
 - Operation of the Olympic and Paralympic villages including food service, maintenance and housekeeping;
 - Accommodation costs for temporary workers required for the Games; and
 - Costs related to other operational areas including logistics, snow removal and sanitation, and food and beverage service.

■ Approximately C\$515 million for technology which includes:

- Technology infrastructure (e.g., networks, technology systems) and telecommunications to coordinate and manage the Games across all venues;
- Timing and scoring services and systems for competitions to ensure accurate results; and
- Energy services including power redundancy for broadcast operations.

Approximately C\$350 million for royalties on ticketing and domestic sponsorship owed to the IOC/COC

- as well as the fee payable to the IPC (with C\$80 to C\$85 million paid to the IOC, approximately C\$260 million paid to the COC and approximately C\$10 million paid to the IPC).

■ Approximately C\$240 million for sports operations which includes:

- Costs to plan and deliver competitions including the required training equipment;
- Costs to use venues through venue rental or venue use agreements; and
- The delivery of medical services including the required clinics and medical imaging.

■ Approximately C\$170 million for revenue development, marketing and communications which includes:

- Providing services to sponsors of the Games as part of their ongoing agreement (sponsorship servicing);
- Costs related to commercial rights management and requirements to control outdoor ad space;
- Staging the torch relay across Alberta and Canada;

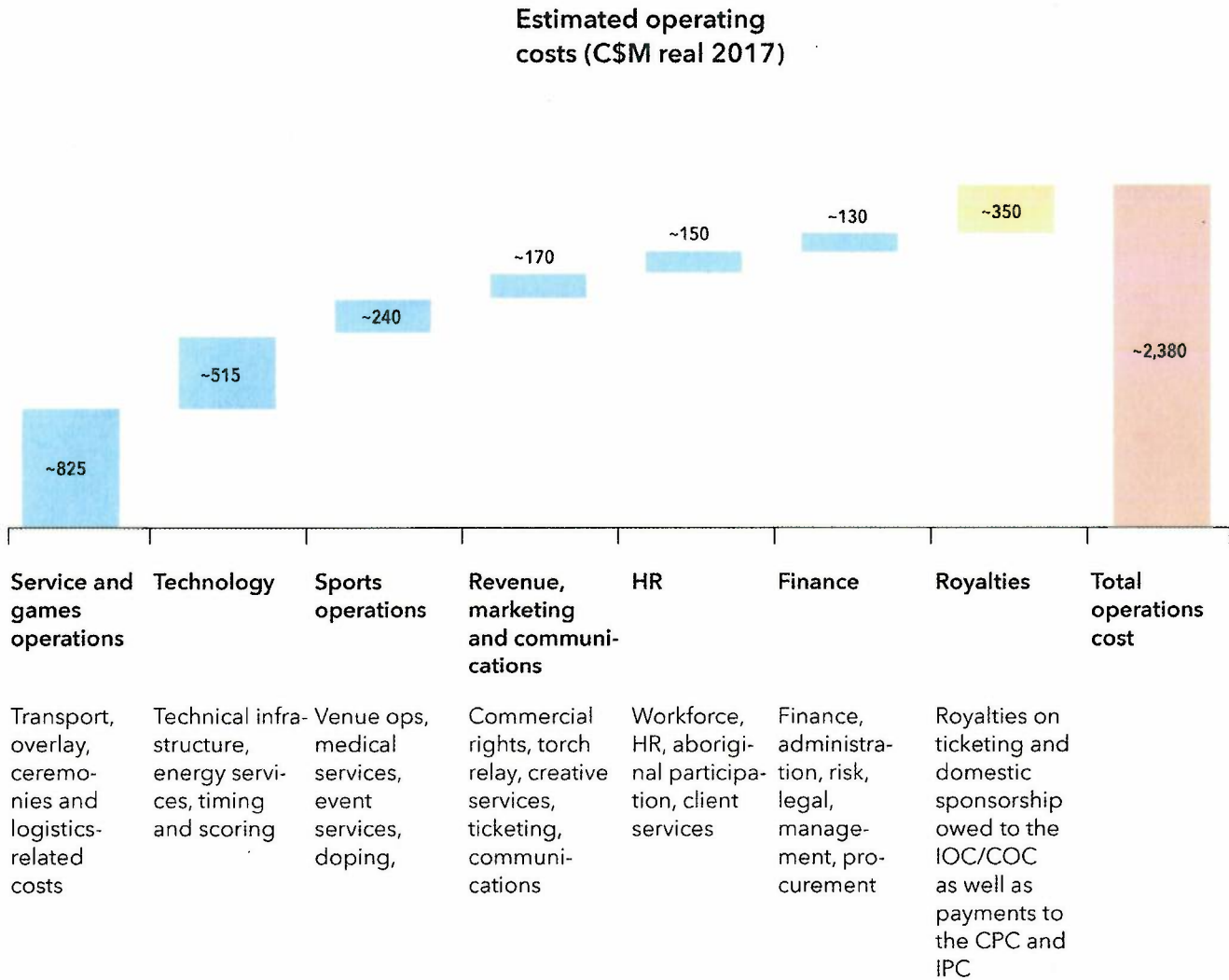
- Creative / design services and communications services including media relations and editorial services; and
- The provision and management of tickets.

- Approximately C\$150 million for human resources costs which includes:
 - Employee retention initiatives (e.g., completion bonuses) and employee compensation;
 - Workforce training and uniforms for all staff and volunteers; and
 - HR functions (e.g., payroll, onboarding).

- Approximately C\$130M for costs related to finance which includes:
 - Finance functions (e.g., accounting) and financing costs;
 - Administration and office space rental;
 - Risk management functions; and
 - Legal costs.

Figure 6.8 provides a closer look at estimated operating costs for hosting the 2026 Games.

Figure 6.8 Summary of operations costs

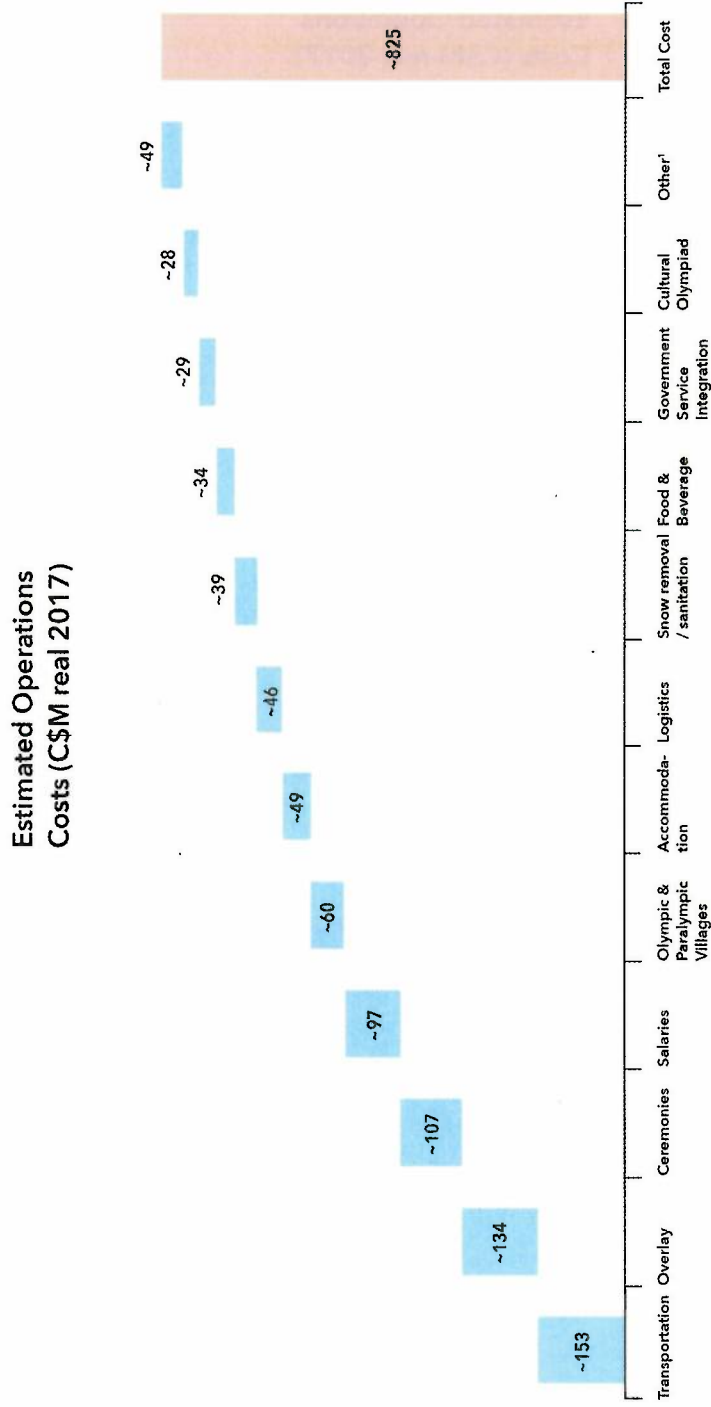


Note: Totals may not add due to rounding

Source
VANOC FINANCIAL STATEMENTS, WORKSHOPS WITH OLYMPIC EXPERTS, BCG ANALYSIS

For each major cost category identified above, we have further broken down costs in greater detail (see Figures 6.9 – 6.14).

Figure 6.9 Service and games operations costs

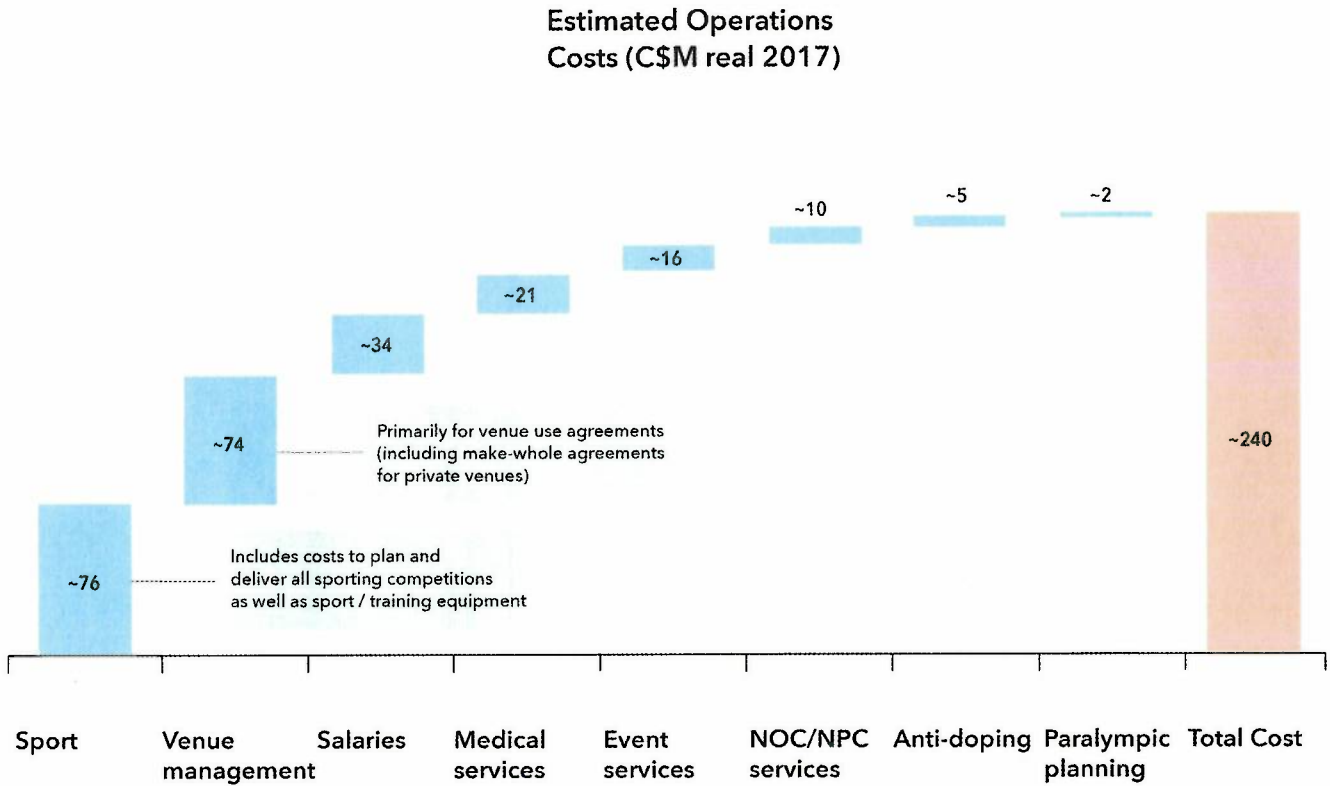


Responsible for delivering nearly all centralized and support services required to successfully execute Games

1. Includes Look of the Games (~\$17M), Security Integration (~\$13M), Press Operations (~\$7M), Broadcast Integration (~\$6M), Media Village (~\$6M)

Note: Totals may not add due to rounding

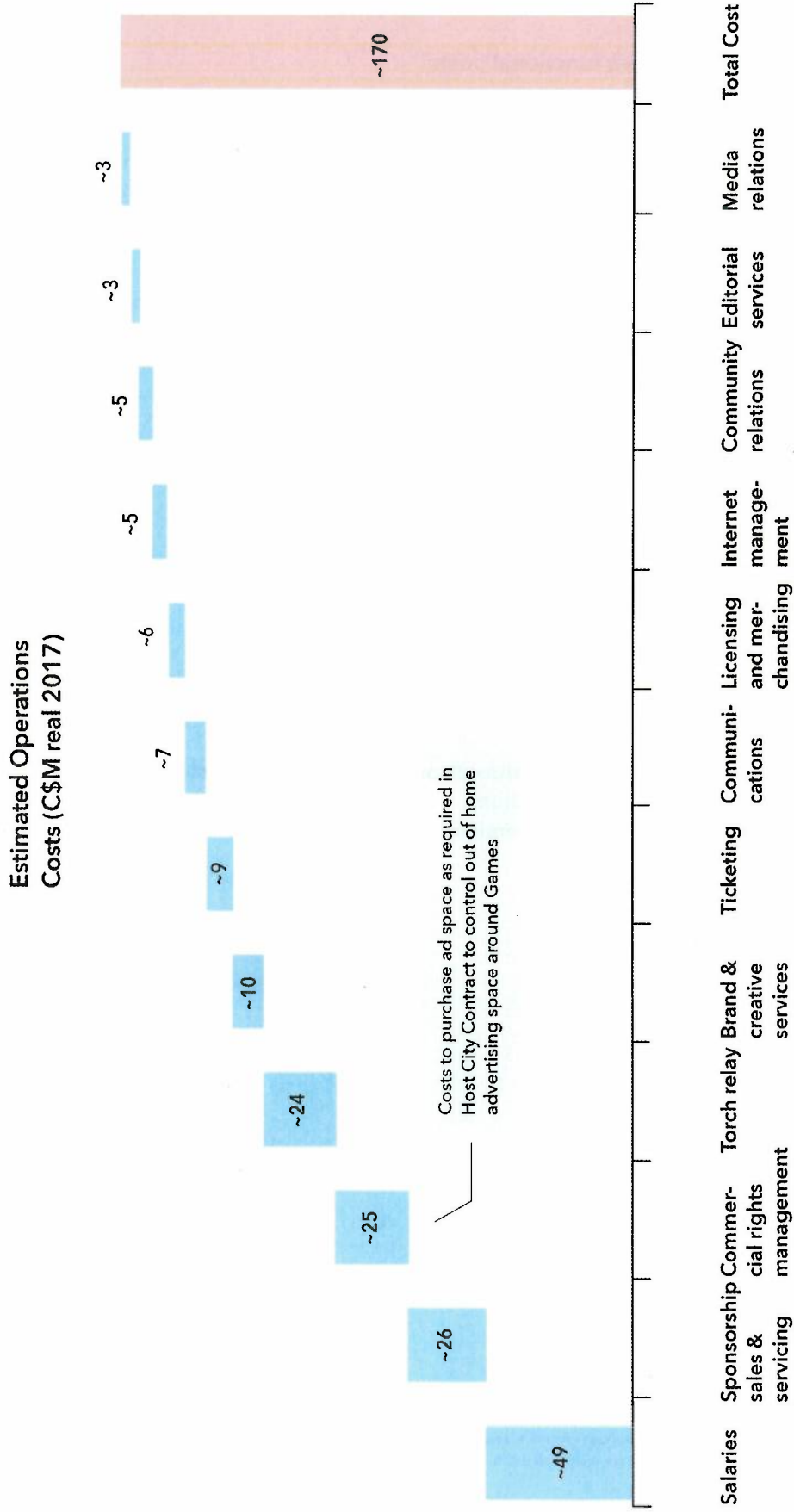
Figure 6.11 Sports operations costs



Note: Totals may not add due to rounding

Source: VANOC FINANCIAL STATEMENTS, WORKSHOPS WITH OLYMPIC EXPERTS, BCG ANALYSIS

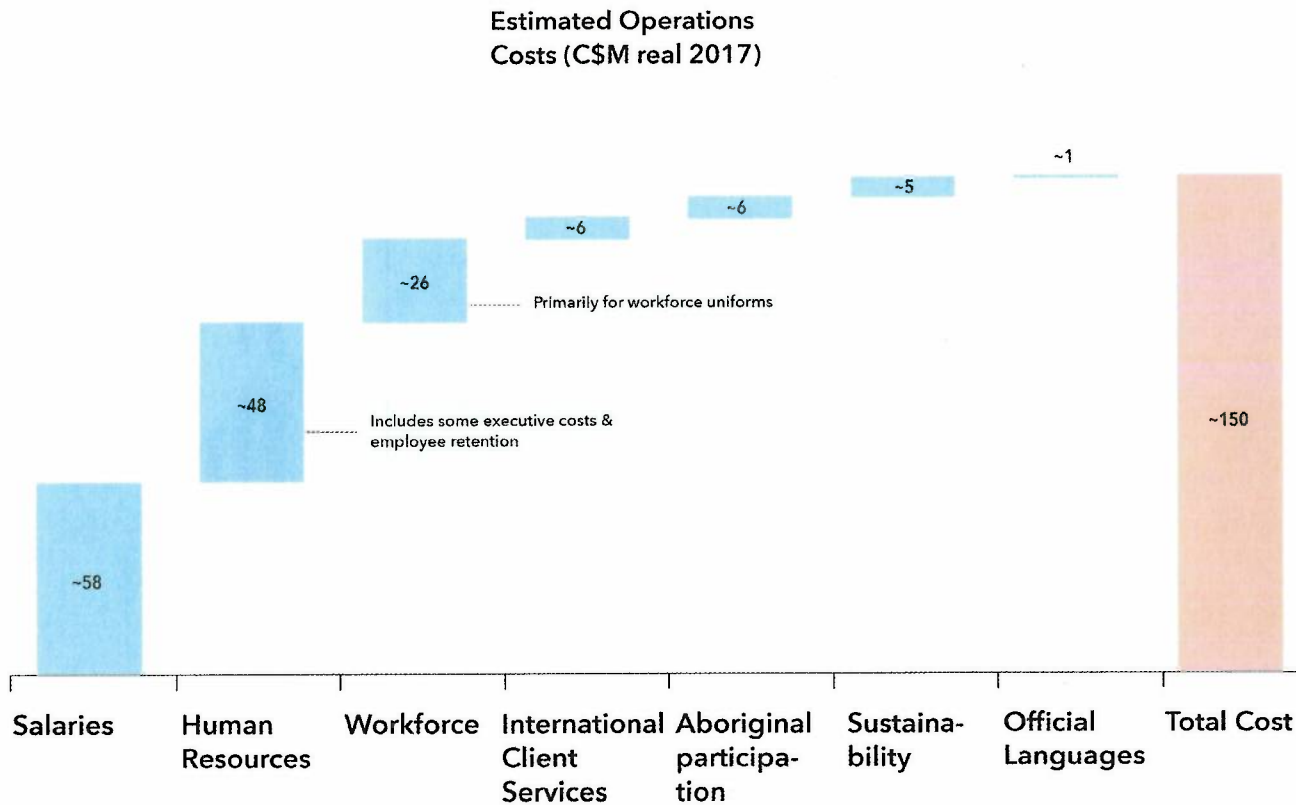
Figure 6.12 Revenue development, marketing and communications costs



Note: Totals may not add due to rounding

Source: VANOC FINANCIAL STATEMENTS, WORKSHOPS WITH OLYMPIC EXPERTS, BCG ANALYSIS

Figure 6.13 Human resources functional costs³

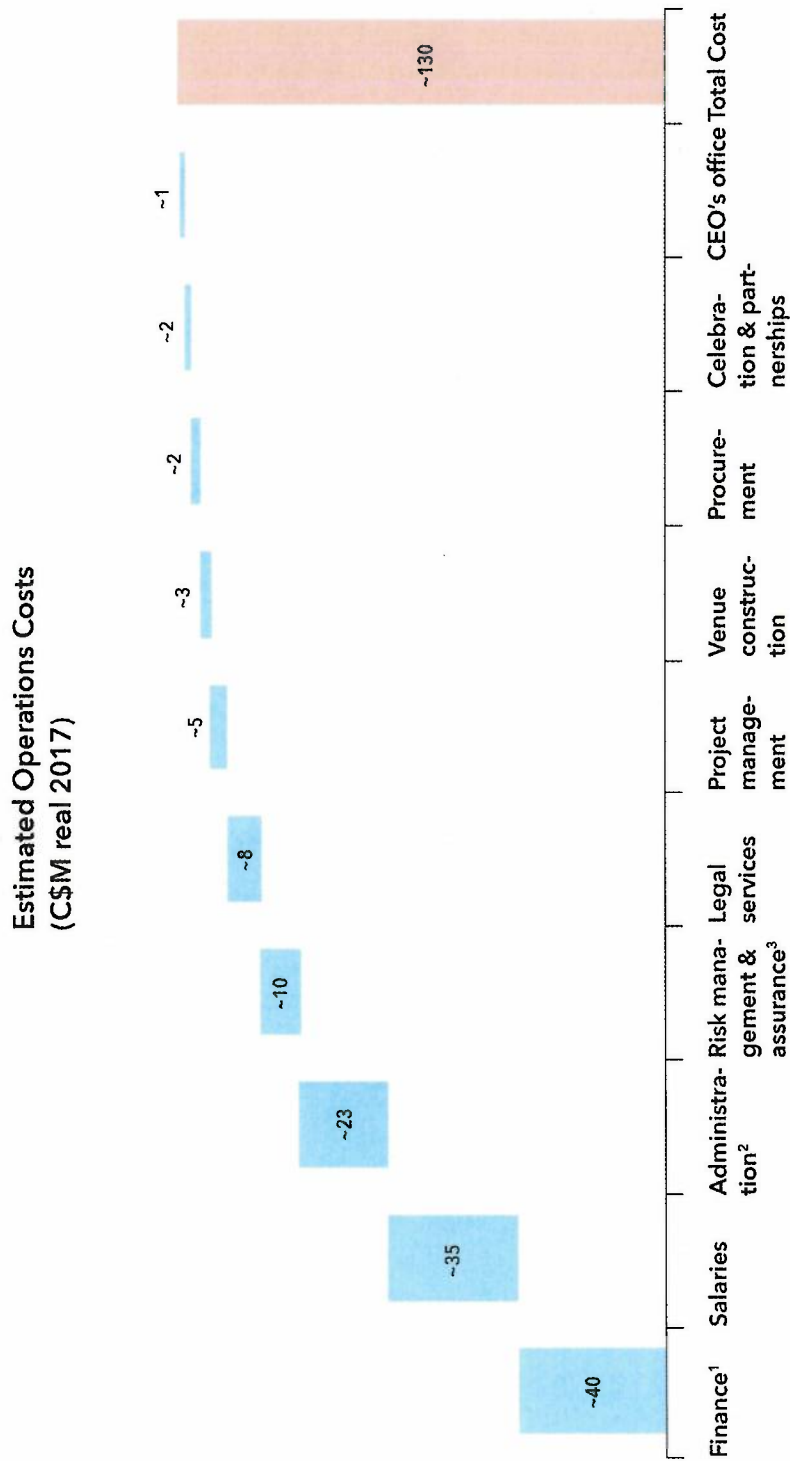


Note: Totals may not add due to rounding

Source
VANOC FINANCIAL STATEMENTS, WORKSHOPS WITH OLYMPIC EXPERTS, BCG ANALYSIS

³ Costs shown in this section relate only to the Human Resources function which includes workforce training and uniforms as well as HR functions (executive costs, employee retention, payroll). Human Resources costs do not include all salaries as these are shown separately in each function

Figure 6.14 Finance costs



1. Includes financing costs, finance functions (including accounting and tax) and banking fees
2. Includes office rent, offsite facilities, office furniture and fixtures, and other office services
3. Primarily related to insurance costs

Note: Totals may not add due to rounding

6.3

OPERATING REVENUE

6.3.1 METHODOLOGY AND APPROACH

In arriving at a revenue estimate for the 2026 Games, a combination of top-down estimates (starting with a high-level budget figure and then breaking down estimate into component parts) and bottom-up estimates (starting with component part figures and aggregating into a high-level estimate) was used. For example:

- The IOC's currently estimated contribution was based on our dialogue with the IOC as part of our research process as identified in [Section 6.2](#).

- Sponsorship and merchandising estimates were based on Vancouver's performance and their ability to leverage these revenue sources. Adjustments were made to reflect Calgary's environment and broader marketing dynamics.

- New revenues sources were identified and estimated using benchmarks and other case studies.

- Ticket revenue was estimated using a bottom-up approach based on the proposed facility plan, estimated purchase rates, and ticket prices.

6.3.2 OPERATIONAL REVENUE

Based on our approach outlined above, **revenue estimates for the 2026 Games total C\$2,190 million** in non-government revenue largely derived from domestic sponsorship, the IOC's contribution and ticketing. Key revenue categories are broken down as follows:

Approximately C\$820 million from domestic sponsorship assuming ongoing support from COC sponsors who were a part of the Vancouver 2010 Games structure, plus success in acquiring newer Canadian partners who were not a part of the Vancouver 2010 Games as well as some modest success in “open categories” (categories for which there is no exclusive partner at this time).

Approximately C\$700 million from IOC's current contribution net of value-in-kind (VIK) contributions that are not budget relieving⁴.

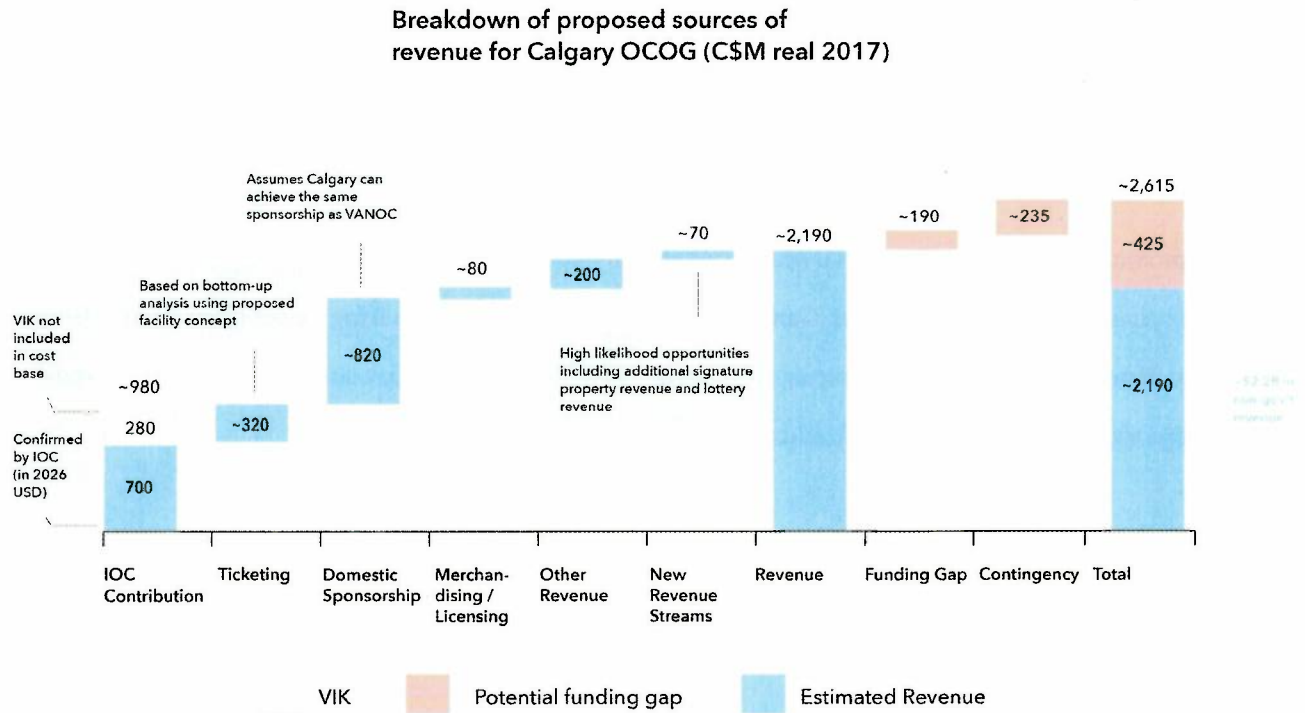
Approximately C\$350 million from licensing, merchandising and other revenue sources, including new opportunities (which total ~C\$70M).

Approximately \$320 million from ticketing given proposed venues, while ensuring a significant number of tickets (~750,000 tickets or 45 per cent of total) are priced affordably (below \$100 per ticket) for residents of Calgary and area.

Figure 6.15 provides a breakdown of revenue sources in greater detail.

⁴ The IOC's contribution also includes C\$280 million in value-in-kind revenue such as knowledge transfer that is not reflected in our cost estimates. As a result, it is also excluded from our revenue estimate.

Figure 6.15 Operations revenue breakdown



1. inflated to 2017 CAD dollars

	IOC Contribution	Ticketing	Domestic Sponsorship	Merchandising / Licensing	Other Revenue	New Revenue Streams	Revenue	Funding Gap	Contingency	Total
% of Gross Revenue	32%	15%	37%	4%	9%	3%	100%			
VANOC Revenue (\$M)	734	303	820	61	197	N/A	N/A	211		2,327
VANOC % of Revenue	32%	13%	35%	3%	8%	N/A	N/A	9%		100%

Note: Totals may not add due to rounding

Source: VANOC FINANCIAL STATEMENTS, WORKSHOPS WITH OLYMPIC EXPERTS, BCG ANALYSIS

Our ticketing revenue estimate offers a good example of the level of detail in our approach. Key assumptions included:

- Ticket prices were based on the 2010 Vancouver Olympics with adjustments to reflect local sport popularity in Calgary and events which were oversubscribed in Vancouver (e.g., curling and ice hockey respectively)
- We worked to ensure a significant number of tickets remained accessibly priced (i.e. 45 per cent of tickets priced below than \$100 per ticket) for local residents.
- Venue capacities were based on the proposed selection of venues, including approximate allocation of seats to different price tiers.
- Purchase rates were estimated at the event level and based on Vancouver 2010 purchase rates.
- The event schedule was developed with input from the Master Facilities Plan team to reflect the best, current view of the event schedule for a 2026 Games.

Figure 6.16 provides an example of the ticketing revenue estimate methodology we applied for each event in the winter Olympic schedule and Figure 6.17 illustrates our estimate of ticket revenue while keeping tickets affordable for local residents.

Figure 6.16 Ticket revenue estimate methodology

Ticket revenue estimated for each event in schedule

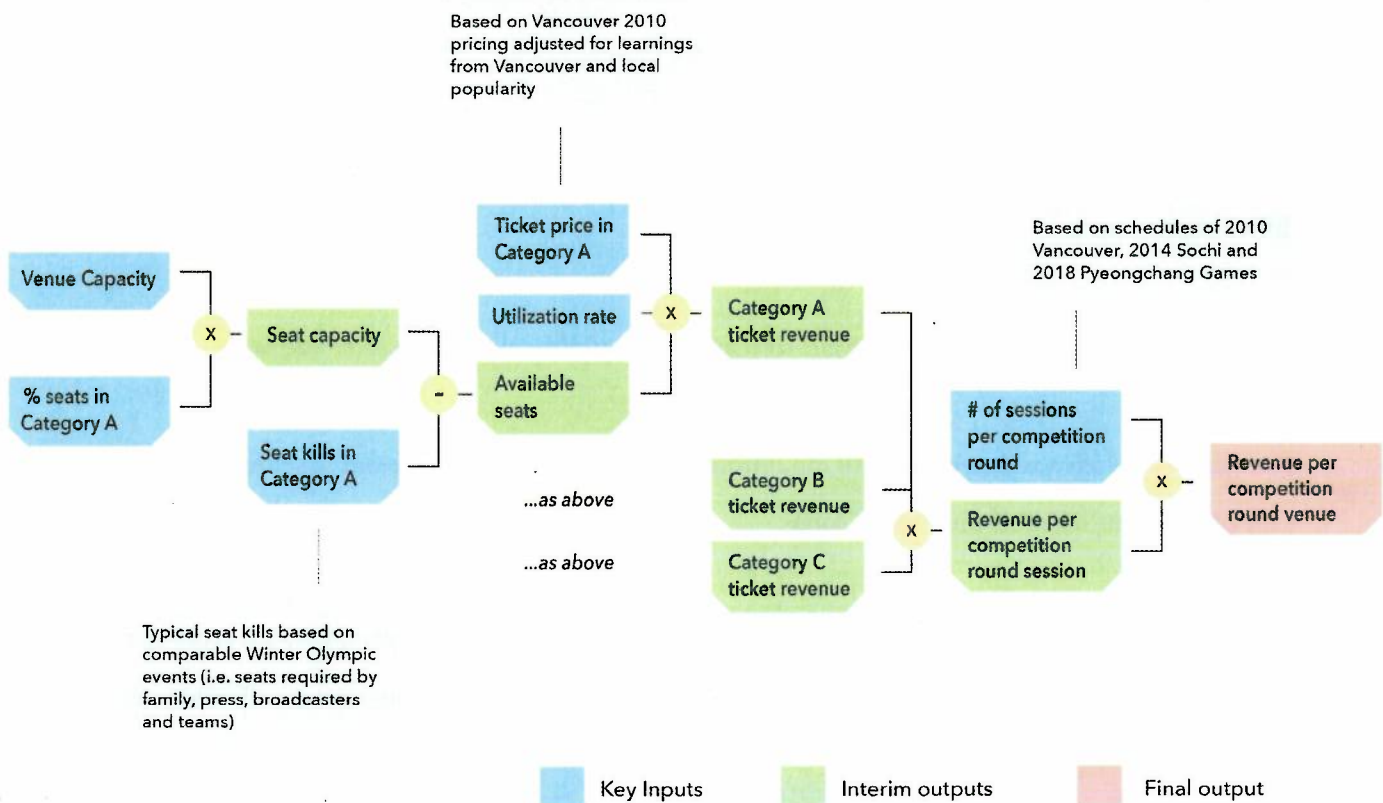
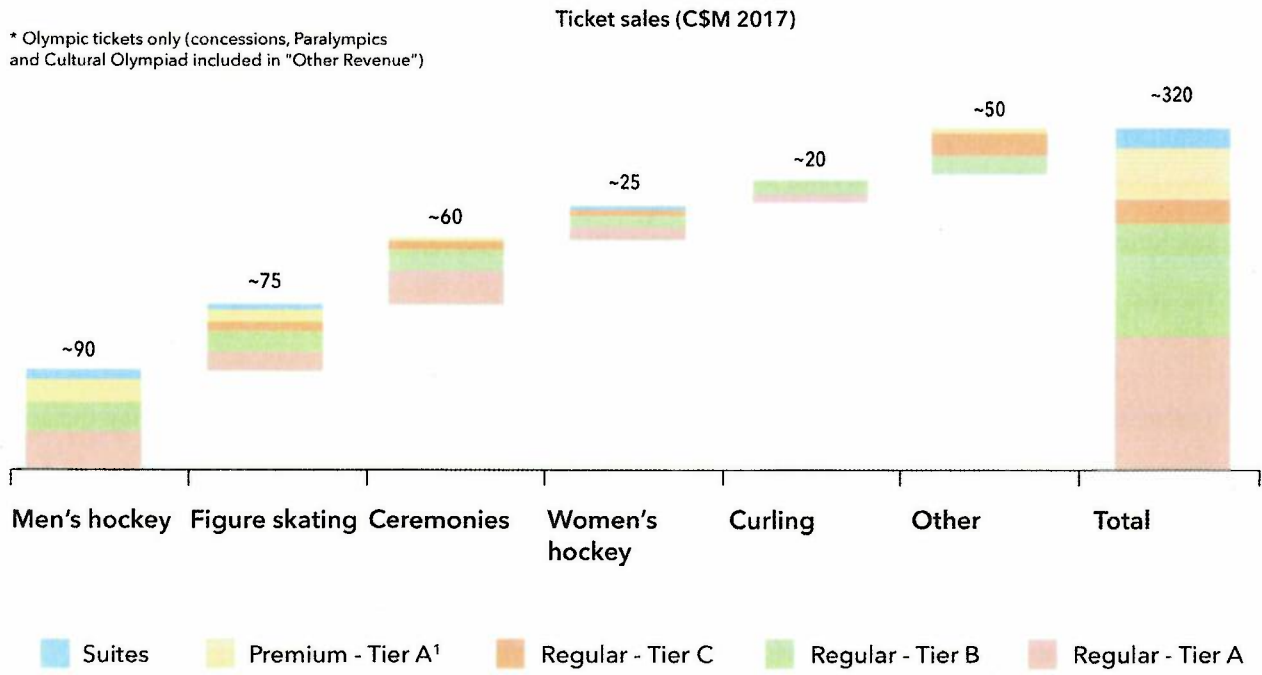


Figure 6.17 Ticket revenue estimate

Current view suggests total ticket revenue of ~\$320M based on potential event schedule and venue capacities



Pricing structure based on VANOC's; ~ 45% of all tickets are priced below \$100 to ensure accessibility for local residents

1. Premium seats are often referred to as club seats
 Note: Sales are net of 17% of capacity being set aside for Olympic Family and IOC; Totals may not add due to rounding

6.3.3 THE FUNDING GAP

The current estimate would require \$425 million in additional funding to bridge the gap between operating costs and revenue sources, including contingency, and ensure the Games break even without contingency. We believe this gap can be closed through coordinated action across several levers:

Reviewing the host city contract with the IOC to identify opportunities to selectively relax or modify operational requirements and service levels thus lowering costs. Areas that could be explored include (but are not limited to) power redundancy, “rate card” recovery rates, medical services, and ensuring more certainty on the cost of services provided by IOC partners.

Discussing opportunities to otherwise increase the IOC’s obligations or contributions to hosting the 2026 OPWG and/or decreasing obligations for a prospective OCOG.

Developing a new and innovative domestic sponsorship program with the Canadian Olympic Committee that could contribute to increased sponsorship revenue beyond what was seen at the 2010 Games.



6.4 VOLUNTEERS

Volunteers are a cornerstone of a successful Olympic Games. Over 17,000 volunteers supported the Vancouver 2010 Games during the Games themselves - the large majority of whom were from across Canada. Given Calgary's strong legacy of volunteerism - itself an outcome of the 1988 Winter Olympic Games - we believe a similar level of volunteerism as Vancouver could be achieved in Calgary at a minimum. The 1988 Calgary Games, which had approximately half the events and number of competing athletes versus an anticipated 2026 Games, relied on approximately 9,500 volunteers during the Games (from over 24,000 total applications). Consequently, we believe it is feasible for Calgary to experience similar levels of volunteer support and the use of Vancouver's costs in developing our estimates for the 2026 Games embeds similar levels of volunteerism into our costs or approximately 17,000 volunteer positions.

In addition to Calgary's legacy of volunteerism, we believe this assumption is reasonable because, following the announcement of the bid exploration and during CBEC's meetings and discussions with individuals in Calgary and the Bow Corridor, many have indicated a desire to get involved and support the preparation for and hosting of the Games.



SECTION 7. **SECURITY: COSTS AND FUNDING**



7.0 OVERVIEW

The focus of the security review was to determine whether it would be possible to effectively provide a safe and secure environment for Calgary and region to host the 2026 Olympic and Paralympic Winter Games (OPWG) without the cost of doing so becoming prohibitive.

A multi-pronged review was conducted of previous major events and following that experienced members of the policing and security communities were engaged. A thorough evaluation of the security models for the Vancouver 2010 OPWG and the Toronto 2015 Pan Am and Parapan Am Games was also completed.

Ultimately, a methodology was established to create a potential security framework for the 2026 Games and to develop an associated cost estimate. The end result of this process demonstrates that by reducing risk to as low as is reasonably practical and purposefully managing any residual risk, it is possible to provide thorough security at a cost meaningfully lower than the \$1.3 billion average experienced at recent Games. Enduring benefits or legacies resulting from this security framework have also been identified.

There are still some components of the security process that will need to be completed should a decision be made to pursue a bid. Determining a lead security agency and developing a cost sharing formula will involve discussions with all levels of government. And regardless of the decisions made on those two issues, formal engagement with the RCMP and Calgary Police Service will need to be solidified.

7.1 REQUIREMENTS

In preparing this report, CBEC's security analysis has been guided by a subcommittee of experts in the security field including representatives from the Calgary Police Service (CPS), the Royal Canadian Mounted Police (RCMP) and the Calgary Emergency Management Agency (CEMA).

To ensure our work is thoroughly informed, we have further developed working relationships with the former second-in-command of the Vancouver 2010 Olympic and Paralympic Winter Games security team, the former second-in-command of the Toronto 2015 Pan Am Games security team, the current officer in charge of the RCMP Major Events and Protective Security Section, and the current Canadian Security Intelligence Service (CSIS) Station Chief for Western Canada.

SECURITY MANAGEMENT PHILOSOPHY AND FRAMEWORK

Over the past number of years, major event security has been influenced by a post-9/11 mindset (referred to as September 12 thinking). The resulting security philosophy has been high consequence aversion through a planning approach driven by "imagining the unimaginable." The corresponding security costs inherent in this approach have become a significant part of major event budgets and a deterrent to hosting them.

We fully recognize the enormity and significance of the Olympic and Paralympic Winter Games (OPWG), as well as the reality of the global and local issues that could potentially threaten the security of this event. That said, the focus has been to prepare *a pragmatic and fiscally prudent security framework*, based on a philosophy of active risk management as opposed to high consequence aversion. We believe our work demonstrates this can be done and from a security perspective, the reasonable and prudent test for whether Calgary should submit a bid has been satisfied.

Unbridled security planners can easily identify measures they believe should be put in place, but at some point, the cost of these measures becomes significantly disproportionate to the risks they mitigate. A pragmatic security plan would include strategies and measures designed to reduce the risk to as low as reasonably practical. Investment beyond this point would likely have insignificant measurable impact and therefore be of limited, if any, value. Rather than spending in an attempt to eliminate risk, this reality requires critical thinking, a step back, and an acceptance there will be ongoing risk to manage.

The framework we advocate is based on the following three guiding principles:

1. Acknowledge confidence in the intelligence community to provide reliable data to define the actual threat/risk and to guide mitigation strategies.

- a. Accept risk can never be reduced to absolute zero.
- b. Adopt a realistic approach to risk management (manage residual risk).

2. Incorporate advances in security hardware and software technology to support the human security element and reduce personnel costs.

- a. CCTV analytics and integrated video management system.
- b. Perimeter intrusion detection, virtual fences and unmanned aerial vehicles.
- c. More effective and efficient screening tools for people and vehicles.

3. Risk manage the qualifications of the human resources required on a continuum.

- a. Personnel placement should be commensurate to the risk profile and the skillsets required (i.e., instead of staffing every position with police officers, consider other options).
- b. Staffing continuum would be as follows: Volunteer > Security Guard > Peace Officer > Sheriff/Provincial Peace Officer > Police Officer > Specially Trained Police Officer > Armed Forces.

This framework and its associated principles were the guiding influence through the process of establishing the current state vulnerability assessment and associated risk mitigation strategies, as well as developing the overall Games security framework.

Three key risks have been identified that could impact the reliability of the proposed security framework and its associated cost. The first of these risks is beyond our control and cannot reasonably be mitigated. However, the other two risks have varying degrees of control associated with them and mitigation efforts could reduce the level of risk.

1) The threat environment may change over the next nine years (non-mitigatable).

The assumption during this process is to utilize the current level of threat, which is LOW. However, the threat levels nationally or provincially could be influenced by geopolitical factors such as: Canada's participation in global counter-terrorism efforts; impacts from government decisions on issues such as pipelines; advances in technology and the associated intrusion threats; and the socio-economic environment.

2) Venues may be changed or added (can be mitigated).

The security framework and cost estimate is based on the assumption the venues will remain as identified during this process. The Bid or Organizing Committees could change the location of venues, create a need to make renovations to venues, or add new venues. In addition, the International Olympic Committee (IOC) could add new venues through decisions such as the addition of demonstration sports. One mitigation strategy could address this risk:

- The concept of venue clusters reduces perimeter security costs as well as security staffing costs. Incorporating any new venues into existing clusters will minimize any additional related expense.

However, additional venues not in a planned cluster, particularly if situated outside of Calgary or the Bow

- Valley Corridor, would complicate security planning, logistics, coordination, and operational command and control, as well as adding meaningful costs.

3) The federal government assigns a lead security agency that does not embrace the proposed security philosophy (can be mitigated).

The assumption is the lead security agency will incorporate the security philosophy proposed in this submission. However, historically, the preferred tactic of lead agencies has been to adopt the high consequence aversion approach when planning and executing major event security. If this was the case, costs could escalate to Vancouver 2010 levels. Two mitigating strategies could address this risk.

- Have the provincial government support a joint CPS / provincial RCMP leadership structure similar to the successful 2002 G8 model.

- Develop an independent oversight structure that would provide strategic direction to the lead agency consistent with the proposed security philosophy.

Both strategies would require engagement at the political level during the early stages of a bid development process.

In developing the security framework and philosophy for this report, our work was informed by extensive research, which included the review and analysis of over 20 publications authored by police-related agencies, government-related agencies, academia, social agencies and numerous operational documents provided by the RCMP and Ontario Provincial Police (OPP) related to specific events and major event security planning (see *Appendix 7B: Open Source Research* for more information). The following themes emerged from the research and informed the adoption of our proposed security framework:

- The level of security must be proportional to the objective assessment of risk.

 - Planning based on improbable, but high consequence scenarios can make for responses motivated

 - by institutional self-interest and fear of failure, rather than by an objective assessment of threat, vulnerability and consequence. The result is typically over-aggressive and expensive courses of action.

- Officials privately concede that absolute security is a fallacy.

- There is a need to challenge the assumption that no significant incidents occurring during an event is sufficient justification for massive security costs.

- Security planning for major events requires objective oversight to ensure community standards are met in a reasonable way and at a reasonable cost (see *Appendix 7A: Oversight of the Security Process*).

SECURITY RISKS AND MITIGATION MEASURES

Our assessment of security vulnerability and risk for the prospective 2026 OPWG involved a number of sequential tasks as outlined below.

1. Conduct a current state assessment of the security in place at all known venues and venue clusters.

This assessment has been completed with the best available information on venue location at the time and the venue files have been populated with data. Any venues identified later in the process will likely be new builds or practice venues, which can be addressed for as they are finalized by building security into the new design, by incorporating security best practices and by utilizing the experience with similar venues from previous events.

In addition to venue assessments, certain systems like Calgary Transit and the City of Calgary CCTV network were also evaluated, as was the current state security of critical infrastructure in the city and province.

2. Gain an understanding of the current threat environment.

Discussions on the threat landscape were held with CSIS and with the Alberta Strategic Security Intelligence Support Team. In general terms, the potential threats to the Games have been identified as:

- international terrorism
- local or homegrown terrorism
- cyber intrusion
- civil disobedience or protest
- fraudulent activities (counterfeit products, intellectual property, ticket fraud)
- internal malfeasance to harm the reputation of the City or the Games
- increase in crime (person crime and property crime)

There is little value in quantifying the specific level of threat for any of these areas, as it can change on any given day. However, for the purposes of this exercise we have used the overall threat level in Alberta as our guide, which is currently at LOW.

3. Overlay the various threats against the identified vulnerabilities in a structured risk assessment process.

- Risk assessment involves determining the likelihood of an action (threat) combined with the consequence should the action occur.

- Strategies to mitigate either the likelihood or the consequence of an event will reduce the level of risk. This component of the process has been completed and mitigation strategies have been developed for each venue or venue cluster (see *Appendix 7C: Generic Cluster Risk Assessment Process* for more information).

- These strategies have been folded into the overall security framework proposal, which also includes the various functions that support the comprehensive security effort.

- A critical component in this process was a perception check with the security sub-committee members, in terms of challenging the working group's assumptions and ensuring all cost factors have been considered.

7.2 COSTS

LESSONS LEARNED

There are a number of influencing factors and cost drivers from the Vancouver 2010 OPWG security effort, which from a “lessons learned” perspective will have a positive impact on estimating – and ultimately reducing – security costs for Calgary’s prospective bid.

■ Use of Department of National Defence (DND) resources

Leading up to and including 2010, Canada was actively engaged in military action in Afghanistan and as a result there was a significant military presence at the 2010 Games. The reported cost for DND resources in Vancouver was \$231 million. Use of the military in the proposed framework will be significantly scaled back.

■ Planning

The scope of this major event was unlike anything previously planned for in Canada from a security perspective. As a result, significant resources were dedicated to planning and operational roles, but the lessons learned from this experience should translate into a reduced resource requirement for future events.

■ Venues

There were a number of stand-alone venues throughout the greater Vancouver area. Each venue of this nature requires a strong perimeter barrier, Perimeter Intrusion Detection System (PIDS) and access points with screening for pedestrians and vehicles. The planned use of venue clusters, as outlined in [Section 4](#) of this report, will reduce the number of secure perimeters required with a corresponding reduction in resources and physical security necessary.

■ Accommodation

The three initiatives listed above, along with other measures to reduce staffing numbers and to maximize the use of local enforcement and private security resources, should significantly reduce the accommodation requirements for security personnel. In addition, the Vancouver accommodation solution (leasing cruise ships) was unique, quite expensive and will not be repeated.

The Toronto 2015 Pan AM Games were also studied. While the dynamic and operating environment of these games were in many ways different than the Vancouver 2010 OPWG, there are leading practices that can be incorporated into a proposed 2026 OPWG security framework.

■ **Managing residual risk versus attempting to mitigate risk to zero.**

Instead of adhering to the past practice of high consequence avoidance, the Pan Am security team made a conscious decision to incorporate rigorous and constant risk management based on the current threat level. Strategies were then developed to manage any residual risk.

■ **Effectively managing private security.**

Private security was a significant cost factor for Vancouver 2010 as well as for London 2012. Security planners in Toronto put processes in place to better manage these costs. These included project management, clearly defined deliverables, restrictions on changes to the staffing model and an operations audit process. In addition to incorporating those lessons, we propose exploring the benefits of contracting multiple providers instead of a single provider.

■ **Incorporating new technology into perimeter security.**

In conjunction with the initiative to risk manage security, the planning team identified certain venues where the risk was low enough that technology, such as unmanned aerial vehicles, was used during off hours to support perimeter security. This meant these venues could have reduced staffing levels during these hours.

■ **Having the OPP lead the integrated security team.**

The Government of Ontario assumed financial oversight for the Games and they assigned the OPP as the lead agency, in part as a means to control security costs.

COST ESTIMATES

Once the host city has been named, an Organizing Committee for the Olympic Games will be established. In tandem, an Integrated Security Unit (ISU) will also be formed.

The ISU will ultimately include functions such as the Joint Intelligence Group, planning, logistics, finance, supply chain, human resources, training and exercises, public affairs, community engagement, accreditation, file management and eventually the command and control element.

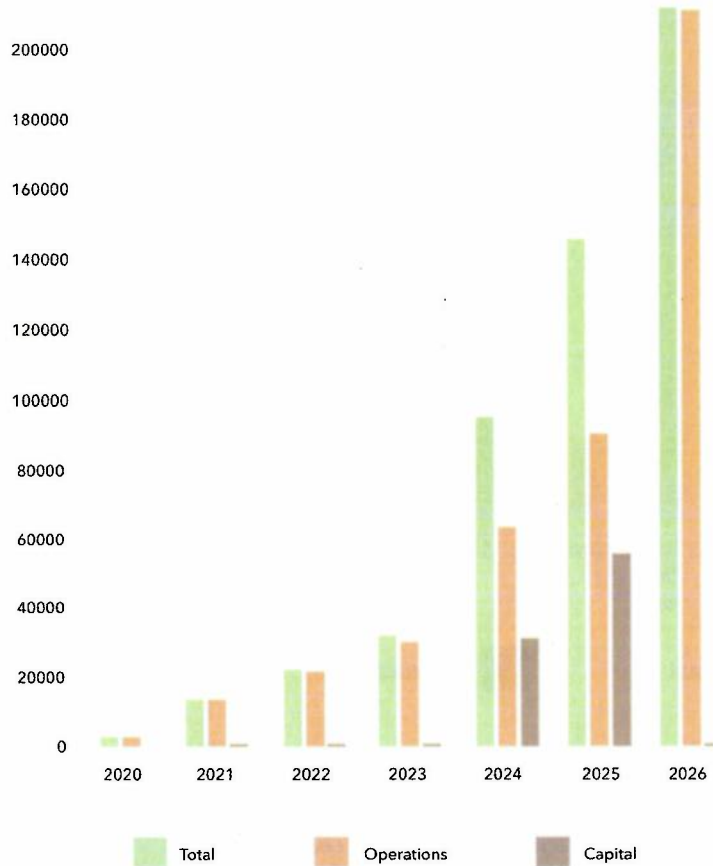
Costs for the ISU would include staff, travel and accommodation for out-of-town staff, office space and equipment, vehicles, warehousing and eventually the acquisition and setup of a command centre. These costs will begin to be incurred approximately six years out, with the highest concentration being in the two years leading up to the Games.

Venue costs were calculated using known or potential venues and venue clusters. The venue costs are broken down between city and mountain areas. Included in the cost estimates are staffing, physical perimeter security, perimeter intrusion detection and other technological solutions, access control for pedestrians and vehicles, and day-to-day operating expenses. Also incorporated are the costs for the quick response teams and tactical/emergency response teams that would provide overall support in both areas, potential overtime costs, the travel and accommodation costs for out-of-town security personnel, costs for traffic and transportation security, costs for safeguarding Internationally Protected Persons and administrative costs. These costs are a reflection of the risk mitigation strategies identified through the threat and risk management process.

The overall primary cost estimate for providing security for the 2026 OPWG is \$510 million. In determining a final budget estimate it was decided a contingency should be applied. Unlike other disciplines, such as construction projects, where there is a high level of frequency in estimating costs and an associated body of work to guide contingency assessments, there is no similar benchmarking process for determining a contingency factor related to securing major events. That said, certain principles from these other disciplines can be applied to our process. As an example, the estimates for many of the perimeter security components and screening equipment were at a very high level. When the true scope and magnitude of the requirements are determined, the actual cost for these items could be greater than anticipated. In addition, the uniqueness and complexity factors involved in securing a major event like this make it more challenging to estimate actual costs than would be the case for the average construction project. Based on all of the circumstances we determined there are similarities to a Class 4 project estimate and have applied a 20 per cent contingency to the overall budget estimate. This contingency does not insure against the three risks identified in [section 7.1](#). **With the \$100 million contingency added, the full projected cost estimate is \$610 million.**

The cost breakdown is illustrated below, depicted year-by-year and also by area. Total costs are further broken down by operations (see Figure 7.1) and capital categories (see Figure 7.2). Included in the capital costs are resources within the ISU dedicated to the procurement of capital acquisitions (\$6 million over six years).

Figure 7.1 Security costs by year (\$000)



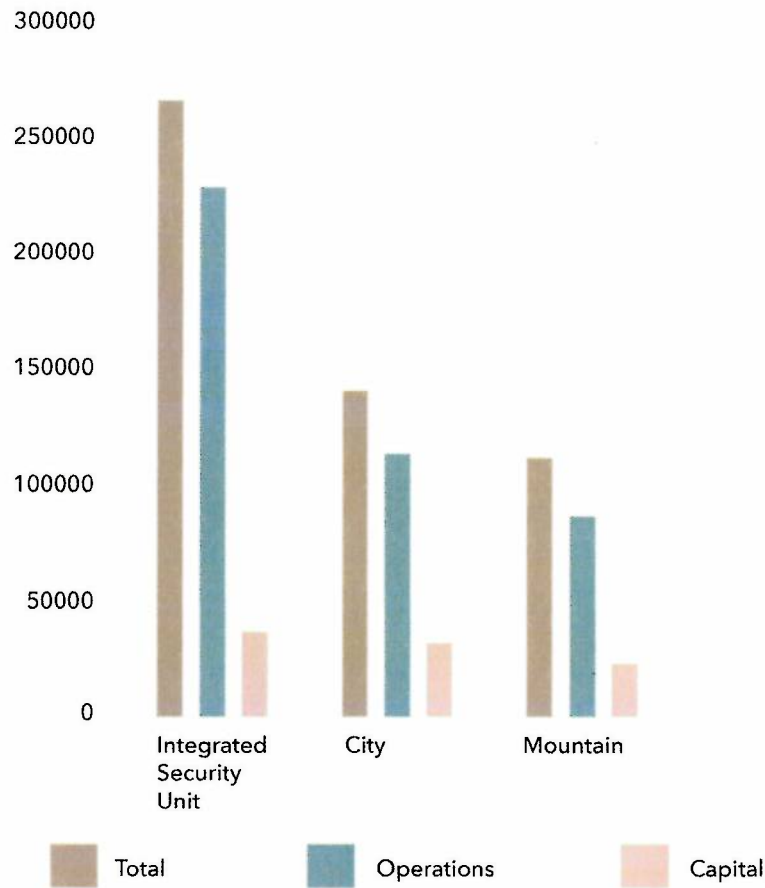
YEAR	TOTAL	OPERATIONS	CAPITAL
2020	\$3,000	\$2,900	\$100
2021	\$13,000	\$11,900	\$1,100
2022	\$21,500	\$20,300	\$1,200
2023	\$31,000	\$29,800	\$1,200
2024	\$92,500	\$61,000	\$31,500
2025	\$142,000	\$87,000	\$55,000
2026	\$207,000	\$206,000	\$1,000

TOTAL	\$510,000*	\$418,900	\$91,100
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Source
CBEC

*Does not include contingency of \$100 million, which when added brings the total to \$610,000

7.2 Security costs by area (\$000)



TYPE	TOTAL	OPERATIONS	CAPITAL
ISU	\$264,000	\$227,400	\$36,600
CITY	\$140,000	\$108,000	\$32,000
MTN	\$106,000	\$83,500	\$22,500
TOTAL	\$510,000*	\$418,900	\$91,100

*Does not include contingency of \$100 million, which when added brings the total to \$610,000

Source
CBEC

LEAD AGENCY AND FUNDING MECHANISM

The issues of which agency would lead the OPWG security effort and how security would be funded are clearly intertwined. Research conducted as part of this exploratory process did not identify any clear legislative framework for determining either component of this equation.

RCMP After Action Reports from Vancouver 2010 indicate they believe their authority to be designated as the lead security agency comes from the Foreign Missions and International Organizations Act. However, our analysis of the section of this legislation the RCMP cites for this mandate suggests it actually refers to intergovernmental conferences designated by the Government of Canada. The Games are a non-political sporting event so this legislation is not necessarily relevant. The Prime Minister could designate the Games as a national event; however, that does not necessarily suggest the RCMP would then automatically become the lead agency for security.

The overall responsibility for policing is constitutionally a provincial jurisdiction. There are some exceptions where the RCMP have responsibility, such as security for Internationally Protected Persons and national security, but with respect to the type of security policing specific to the Games, the authority would rest with Alberta. The process for determining the lead agency is actually one of negotiation between the different levels of government. In fact, it would appear from the various agreements between Canada and British Columbia in preparation for the 2010 Games it was the Province of British Columbia that requested the RCMP be designated as the lead agency for security. It would also appear this negotiation process was how the OPP were designated lead security agency for the 2015 Pan Am and Parapan Am Games.

There is a similar lack of clarity surrounding the security funding issue, in that there does not appear to be a clearly defined process for determining who would pay for what. Public Safety Canada has a Security Cost Framework Policy, which outlines how funding is available for major international events. However, much like the Foreign Missions and International Organizations Act, it would appear this framework is designed for intergovernmental conferences designated by the Prime Minister. In fact, in a 2013 audit report on the program all of the events mentioned in the audit were large intergovernmental conferences, like G20 in 2010, but there was no reference at all to Vancouver 2010.

As with the issue of lead agency, it would appear the funding framework for Games security would be developed through negotiation. For Vancouver 2010, the initial agreement between Canada and British Columbia had each party responsible for 50 per cent of the costs. However, as the security cost estimates began to substantially increase, the Province re-negotiated the agreement and set a cap of \$252.5 million as their contribution to security costs.

7.3

ENDURING BENEFITS

From a security perspective, there are two types of enduring benefits or legacies that can be derived from an event like the OPWG. The first are learning opportunities, in relation to process or experience, which can help inform security planning and operations for future events. The second are capital acquisitions that can be repurposed to the public and not-for profit-sectors.

Major, multi-day sporting events do not occur on a regular basis and that makes it difficult to provide accurate security data in a feasibility exercise such as undertaken here. In fact, one of the common observations from past events is that security costs have been significantly undervalued in the initial estimates. The CBEC security team has enjoyed first-hand access to those involved in the planning and operations for both the 2010 Vancouver OPWG and the 2015 Toronto Pan Am and Parapan Am Games and has leveraged the information gleaned from these sources, as well as from other research materials, into a process we believe provides sound guidance in determining potential security costs for major sporting events.

While the RCMP has developed a Major Event Security Framework, it is restricted to RCMP members and it does not appear to have been significantly updated since 2010. The process we have developed can and should be made available to support any other entity charged with conducting a feasibility assessment for future major sporting events. Moreover, should Calgary decide to bid on the 2026 Games and be successful in that effort, this initial piece of work can be folded into the overall security planning and operations legacy documentation.

Should Calgary pursue and be awarded the 2026 Games and should the eventual security team adopt the philosophy and framework proposed in this report, there is an opportunity to build on the legacy initiated during the 2015 Pan Am and Parapan Am Games. This fluid, risk management based approach to securing large scale athletic events could signal a changing paradigm in major event security. In addition, the integrated approach to security will further build on the library of knowledge around how the policing community can work together, and alongside the private sector, to collectively provide a high level of security for major events. As part of this, the integrated approach to security can manifest into a collection of best practices from multiple agencies that can be merged into a common high standard of practice, from which all participating organizations can benefit.

The notion of some form of civilian oversight (non-police, non-government) over the security planning and operations for a major event is a new concept. If implemented for the 2026 Games, this would set the new benchmark for major event security in Canada and perhaps other democratic societies.

In addressing the potential enduring benefit or legacy opportunities from security-related capital acquisitions, the caveat is these items are merely being proposed. Technology will change significantly in the next five plus years and security planners may have different options to pursue. That said, in this proposal there would be approximately \$80 million in security-related capital purchases and a significant portion of this investment could be repurposed to various stakeholders for long-term use. Examples of this include:

- A dedicated Command and Communications Centre would need to be constructed and equipped, at an estimated cost of \$20 million. This Centre could then be taken over by either the CPS as an enhancement to their Real Time Operations Centre and Tactical Operations Centre, or by CEMA as a backup Emergency Operations Centre. The potential also exists for this facility to be used as a Regional Emergency Operations Centre.

- Approximately \$11 million for the purchase of both high-tech and low-tech personal screening devices, which could be repurposed for upgrading the security hardware in provincial courts.

Approximately \$7 million in repeater upgrades to the Alberta First Responder Radio Communications System, to allow for increased use and coverage, as well as a number of new portable radios that could be absorbed by police services and other emergency response providers in the province.

Approximately \$5 million for a Perimeter Intrusion Detection System (PIDS) and supporting CCTV cameras and analytic software. The PIDS and CCTV installed at not-for-profit venues such as Stampede Park and WinSport's Canada Olympic Park could remain in place to augment existing security. The remainder of the system is portable and in components, so it could be redistributed to enhance security at local and provincial critical infrastructure sites as needed.

Approximately \$4 million for tethered, unmanned aerial vehicles with surveillance capability. These units are transportable with fast deployment ability, so they could be provided to local and provincial police services and/or emergency management agencies to assist with large scale event management.

A significant amount of non-scale, non-cut fencing, chain link fencing and concrete barriers will either have to be purchased or rented. If the economics or logistics suggest purchase, the investment will be approximately \$15 million. There is the potential for the provincial and/or federal governments to warehouse this fencing for future events; however, if that is not feasible it might ultimately have to be sold to the private sector in an effort to recoup some of the initial investment.

Approximately \$20 million has been earmarked for IT infrastructure, which is essentially for developing any new secured networks, securing existing networks, ensuring sufficient bandwidth, integrating multiple existing or new CCTV networks and procuring an accreditation/access control system. There is no reasonable way to understand how this will actually look leading up to 2026, so while there may be some enduring benefit accrued by one or more government stakeholders, it cannot be measured at this time.

While it may be difficult to quantify the process and operational legacy, historically major events such as the OPWG have resulted in learning opportunities and best practices that are incorporated into future policing and security activities. The enduring benefits from repurposing security-related capital investments are much easier to measure.

In some cases, it will supplement what is currently in place locally, such as the incorporation of a Perimeter Intrusion Detection System into the security infrastructure at Stampede Park and Canada Olympic Park, or the construction of a new Command Centre. In other instances, it will enhance existing programs at a provincial level, for example improving the Alberta First Responder Radio Communications System or upgrading security screening at provincial courts. And in some cases, like the use of unmanned aerial surveillance vehicles for large scale event management, it will significantly improve upon the current state of operations.

An argument could be made that provincial and/or federal governments would need to make a normal course of business investment in some or all of these capital items, irrespective of the 2026 OPWG. Nevertheless, it is reasonable to suggest they could both benefit from these acquisitions well beyond 2026.



SECTION 8. **ECONOMIC BENEFITS**



8.0 OVERVIEW

CBEC commissioned two independent economic impact reports from recognized experts – Deloitte LLP (Deloitte) and the Conference Board of Canada (Conference Board). Each was provided with the same base information and worked separately to complete their analyses and reports. Each of the reports indicate hosting the 2026 Olympic and Paralympic Winter Games (OPWG) could provide a wide range of socio-economic benefits to Calgary, Alberta and Canada. These potential impacts are in support of and in alignment with Calgary’s Triple Bottom Line policy. In addition to the immediate economic impacts from bidding and hosting the Games, if deliberate strategies are pursued, the Games could have important legacy impacts that bring lasting benefits to the city and province. Targeted strategies and tactics would need to be employed to realize these benefits.

As was anticipated, the Deloitte and the Conference Board reports had some variation in the scope of their analyses. This summary has primarily referenced the findings from the report that was more robust in scope in a particular area. A summary of differences in scope and methodologies can be found in [section 8.5](#). Both studies can be found in full in *Appendices 8A (Deloitte; Calgary 2026 Olympic and Paralympic Winter Games: Economic Impact Analysis)* and *8B (Conference Board; Evaluating the Economic Impacts of Calgary’s Olympic Bid)*.

In addition to commissioning these studies, CBEC also conducted research and case studies on past Games to supplement and inform this analysis.

With regards to CBEC's guiding questions, this section addresses both:

Question 1: Are successful, fiscally responsible Games feasible in Calgary?

Both the Deloitte and Conference Board reports indicate there would be material positive impacts across Canada. The reports do have slightly varying scopes of analyses - while CBEC provided expenditure estimates for the key activities, both parties made slight adjustments and incorporated different inputs. The Conference Board modelled tourism spending (that they estimated) while Deloitte did not quantify tourism impacts, and the Conference Board also assessed a broader range of taxes compared to Deloitte. To allow for a more direct comparison, the Conference Board's estimated tourism expenditure (\$548 million in spending) and associated impacts (to Gross Domestic Product (GDP), labour income, employment and tax revenues) have been excluded from the following summary findings:

The estimated impacts (direct and indirect, excluding induced) of these expenditures to Canada from the Conference Board and Deloitte reports, respectively, were: GDP (\$2.21 and \$2.66 billion), labour income (\$1.60 and \$1.94 billion), employment (24,000 and 27,600 person-years²) and tax revenues (\$515 million¹).

It was also estimated the majority of these impacts would occur within the local economies of Calgary, Alberta and Canada. For example, it is estimated that Alberta's resulting share of the direct and indirect Canadian GDP impacts could be approximately 83 per cent (Deloitte) to 84 per cent (Conference Board) and the greater Calgary area's share of the Alberta GDP impacts could be as high as 70 per cent (Conference Board).

Government investments in bidding for, and if successful, hosting the Games would be partially offset by an increase in government revenues, which the Conference Board estimates at \$515 million across all levels of government.

¹ Conference Board results. Deloitte and the Conference Board modelled varying types of taxes in their impact estimates. A detailed explanation of the differences in the estimates is available in Figure 8.1 and [section 8.4](#)

² Person-years of employment are defined as a measure of the total work effort associated with a project or, for this report's purpose, the various spending components associated with the Olympic Games. If for example, a specific expenditure item requires 1,000 person-years of employment and spans 10 years, this is equivalent to creating 100 jobs and maintaining those same jobs over a 10-year period.

Question 2: If yes, should a bid for the 2026 OPWG be pursued?

A review by Deloitte suggests that, if delivered purposefully, the Games can align to and support key aspects of Calgary Economic Development's strategy and Calgary's Triple Bottom Line policy framework.

Deloitte's report also indicates the estimated economic impacts would assist in diversifying Calgary's economy by driving growth outside of the resource sector, while supporting the continued development of sport and cultural clusters in the Calgary region.

The Games also present an opportunity to capture long-term legacy benefits that support the socio-economic goals of the region, provided there are specific strategies and tactics employed by the prospective bid and organizing committees as well as other agencies and sectors (e.g. Tourism Calgary, Tourism Alberta, Calgary Economic Development) to realize those benefits.

Deloitte and the Conference Board have taken a conservative approach to estimating the impacts. The Deloitte report notes their analysis does not account for the potential positive impacts from: increased tourism during and after the Games and the associated tourist spending; the induced impacts of spending of wages and salaries earned because of activities associated with the Games; or the impacts of investments in enabling infrastructure that is being considered regardless of the Games but may be expanded or accelerated if the Games are pursued. The Conference Board report notes it has taken a conservative approach to estimating tourism impacts in that it: has accounted for displacement effects³ observed in Vancouver; does not consider incremental intra-provincial visits; and excludes the impact on same-day visits in the post-Games period.

In summary, the analyses conducted supports both questions in the affirmative, while noting that deliberate economic and socio-economic strategies and plans need to be in place to fully capture the potential benefits.

³ Displacement is an effect generally attributed to visitors postponing trips that coincide with the event or avoiding the region due to perceptions of inflated prices, over-crowding, or disruption caused by construction and other preparatory activities.

8.1

SENSITIVITIES TO ECONOMIC IMPACT FINDINGS

Deloitte and the Conference Board have each independently researched the findings from past Olympic Games as well as other mega-events and incorporated these findings into their methodologies and conclusions. This research uncovered common criticisms of these types of studies, which these reports tried to avoid repeating, to ensure the methodologies employed were robust. Case studies were conducted on three of the most recent North American Olympic Winter Games (Calgary in 1988, Salt Lake City in 2002, and Vancouver in 2010). Deloitte incorporated research on the legacy impacts realized by host cities regarding tourism, housing infrastructure, human capital development, trade and investment attraction, and other socio-economic aspects. The Conference Board conducted a literature review on the pre-, during and post-Games phases, reviewing the impacts observed in past host cities such as London, Vancouver, Torino, Australia and Barcelona.

This research helped to identify the importance of sensitivities regarding these types of economic impact assessments, as there are numerous variables that can greatly sway the results. The main factors influencing the accuracy of estimated economic impacts based on this research are:

■ The accuracy of expenditure estimates used as model inputs.

The biggest factor in the accuracy of economic impact assessments is the accuracy of the expenditure estimates used as inputs. Both Deloitte and the Conference Board used estimates developed by CBEC through its robust process outlined in sections 4, 5, 6, and 7. These estimates were then adjusted by both Deloitte and the Conference Board to exclude certain expenditures each party believed would not have an impact on the economies of Calgary, Alberta or Canada. A reconciliation of modelling inputs is detailed in [section 8.5](#) and figure 8.6.

Leakage of benefits from the local economy.

Leakage refers to expenditures that will take place in economies outside of the domestic economy (in this case Calgary, Alberta, or Canada). This could occur if, for example, foreign contractors were used to source certain materials or technologies. As it is not possible to fully remove leakage in a small, open economy such as Canada, both the Deloitte and Conference Board reports have observed and accounted for some leakage in their reports.

Crowding out or displacement of visitors and spend.

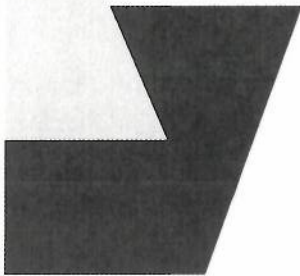
Hosting the Games will likely result in a degree of ‘crowding out’, which occurs when people avoid certain regions or purchases due to the event. For example, potential tourists may delay or cancel trip plans due to potential inflation of prices for the Games. Given this effect, it is important to determine the net or incremental impact of the Games, primarily with regards to tourism spending. The Conference Board has incorporated findings on tourism displacement from the Vancouver 2010 Games into their tourism impact estimates for Calgary 2026, and Deloitte has also identified this effect in the tourism analysis section of its report.

The host region’s labour market situation.

Another key impact to consider is labour income and employment (expressed as person-years). These can be impacted by the regional labour market as well as the extent to which volunteers are utilized to run the Games. If Calgary’s economy was at full employment⁴ around the time of the event, it may require more outside labour to be brought in which might be costlier and therefore increase spending on wages and salaries (as well as increase the leakage of impacts outside of Calgary).

Alternatively, if a large portion of the Games operations was staffed and executed by volunteers, spending on wages and salaries would decrease and therefore the actual impacts to labour income would be lessened. Both the Deloitte and Conference Board reports have accounted for this factor and assumed Calgary would not be at full employment during the event period.

⁴ Full employment is an economic situation in which all available labour resources are being used in the most efficient way possible. Full employment embodies the highest amount of skilled and unskilled labour that can be employed within an economy at any given time.



8.2 ECONOMIC IMPACTS

Deloitte and the Conference Board estimated economic impacts that would result from the expenditures of the Games⁵, with key findings presented below. Note that the below impacts do not include induced impacts (to remain conservative) which were estimated by the Conference Board and included in their report, and that tourism impacts have been separated.

Figure 8.1 Economic impacts for all activities⁶

Summary: All Activities	Deloitte			Conference Board		
	Greater Calgary Area ⁱ	Alberta	Canada	Calgary Metropolitan Area ⁱⁱ	Alberta	Canada
CBEC Expenditure Estimates Modelled (CS B 2017)	----- 3.3 -----			----- 3.5 -----		
Direct GDP Impacts (CS M 2017, excl. tourism)	344	941	950	1,133	1,457	1,599
Indirect GDP Impacts (CS M 2017, excl. tourism)	509	1,256	1,706	175	411	614
Total GDP Impactsⁱⁱⁱ (CS M 2017, excl. tourism)	853	2,197	2,656	1,308	1,868	2,213
Tourism Expenditure Estimated Modelled (CS M 2017)	----- Not estimated -----			----- 548 -----		

⁵ For a detailed reconciliation of the modelled expenditures and CBEC estimates, see Figure 8.6.

⁶ Totals may differ slightly from the sum of individual values shown due to rounding.

- i. The Deloitte report defines the Greater Calgary Area consistently with the Calgary economic region as defined by Statistics Canada, which includes: Foothills No. 31, High River, Longview, Turner Valley, Black Diamond, Okotoks, Rocky View No. 44, Calgary, Chestermere, Cochrane, Airdrie, Irricana, Beiseker, Crossfield, Mountain View County, Carstairs, Cremona, Didsbury, Olds, Sundre, Eden Valley 216, and Tsuut'ina Nation 145 (Sarcee 145)
- ii. The Conference Board defines Calgary through the Calgary Metropolitan Area, which is slightly smaller than the Calgary Economic Region (the 2016 population of the economic region was 1.5 million compared to almost 1.4 million for the metropolitan area).
- iii. The Conference Board has noted in the glossary of their report that given the complexity of isolating direct effects to specific firms or industries in this analysis, the level of indirect effects reported in their analysis capture the remaining second round, or supply-chain, effects associated with Olympic activities and spending. The Conference Board states that while the overall share of total impact is proportionately greater for direct effects, the sum of the direct and indirect effects is unaffected.

Tourism Direct and Indirect GDP Impacts (C\$ M 2017)				313	407	455
Total GDP Impacts (C\$ M 2017, incl. tourism)	853	2,197	2,656	1,621	2,275	2,667
Direct and Indirect Labour Income (C\$ M 2017, excl. tourism)	631	1,641	1,935	983	1,348	1,603
Direct and Indirect Employment (person- years, excl. tourism) ^{iv}	8,506	22,528	27,614	15,817	20,623	24,024
Direct and Indirect Government Tax Revenue, all Canada (C\$ M 2017, excl. tourism) ^v	Municipal	Provincial	Federal	Municipal	Provincial	Federal
	38	43	28	52	182	281
Direct and Indirect Government Tax Revenue, Local Impact (C\$ M 2017, excl. tourism)				City of Calgary	Province of Alberta	Gov't. of Canada
				29	152	281

iv. The results for person-years of employment will differ depending on assumptions used by each party in regards to average wages.

v. Government tax revenue represents the amount of tax revenue at each layer of government (i.e. Municipal \$ is all municipal governments in Canada, Provincial is all provincial governments, and Federal is the federal government). The scope of the Deloitte report covered estimates on federal, provincial and municipal product and production taxes such as provincial sales tax, H.S.T., excise tax, duty tax, air transportation tax, import duties, environment tax, gallon tax, trading profits, gas tax, amusement tax, other provincial consumption taxes, and various taxes on production, whereas the scope of the Conference Board report has covered estimated taxes from incomes, contributions to social insurance plans, product and production, as well as the sale of government goods and services. Additional details can be found in both reports in Appendices 8A and 8B, tax impacts are discussed in [section 8.3](#) and a detailed breakdown of the tax impacts is provided in [section 8.4](#).

Notable findings between these two reports included:

Total GDP impacts appear to be reasonably aligned between the two reports. For example, regarding total Canada direct and indirect GDP impact estimates and excluding tourism impacts, Deloitte's \$2.65 billion is within 20 per cent of the Conference Board's \$2.21 billion. When tourism impacts are included, Deloitte's GDP estimate of \$2.65 billion is within 0.4 per cent of the Conference Board's \$2.67 billion.

There are several factors that contribute to this variance, primarily the differing methodologies employed by each party (see figure 8.5 for a detailed breakdown of each report's methodologies), the slight differences in expenditure inputs each report modelled (see figure 8.6 for a reconciliation of what each report modelled and what CBEC has estimated), as well as the assumptions each report employed in their modelling (e.g., mapping of expenditures to industries and cost categories).

The reports were completed independently of each other using expenditure estimates provided by CBEC. Deloitte and the Conference Board would likely have interpreted and input these expenditures in slightly different ways, in which case their economic models would simulate the expenditures differently and have varying outputs.

Deloitte appears to have estimated a lower proportion of impacts occurring within Calgary (32 per cent of Canada total) than the Conference Board did (59 per cent of Canada total, excluding tourism). This is primarily driven by the differences in assessment models and assumptions:

The Statistics Canada model used by Deloitte does not provide impact breakdowns at the municipal level, and therefore the proportions of provincial GDP within Calgary for each industry were used as proxies, whereas the Conference Board used their metropolitan economic contribution models that accounts for Calgary and Alberta's 'interprovincial commodity flows'.

Tax revenue estimates are quite different between the reports, largely due to the differing scopes of the tax analyses. The scope of Deloitte's tax estimates included only product and production taxes whereas the scope of the Conference Board's estimates included additional forms of taxes (see footnote iii above).

Additional details on tax impacts are discussed in [section 8.3](#) and tax estimates are broken down in [section 8.4](#).

The difference in the estimated employment numbers of each report is driven by two main factors. The primary driver is the magnitude of the labour income (wages and salaries) estimates, and the secondary driver is the set of assumptions and allocations of the labour income to various industries impacted by spending for the Games.

The impacts outlined appear to be within reasonable ranges of each other, when accounting for some variations in scope of the respective analyses. Provided the expenditure estimates fairly represent the actual expenditures which would be incurred, the potential economic impacts of hosting the Games could be significant and reasonably within the ranges of these estimates. A detailed summary of impacts by activity (bid, facilities, operations, and security) can be found in both individual reports in *Appendices 8A and 8B*, and a breakdown of the tax impact estimates is available in [section 8.4](#).

8.3

ASSESSMENT OF ECONOMIC IMPACTS

8.3.1 ESTIMATED GOVERNMENT INVESTMENTS AND IMPACTS

The economic impacts estimated by Deloitte and the Conference Board are desirable, however, they do result from initial government investment. Preliminary estimates developed by CBEC indicate that its concepts for hosting and funding the Games would require government funding of \$2.2 billion. These are meaningful investments for governments to make, and it is important to consider them in the context of potential impacts and benefits. It is anticipated, however, that these investments will be partially offset – and in some cases materially offset – by potential economic impacts including:

In terms of funding to GDP impact ratios, combined government funding could achieve a “GDP-to-Investment” multiplier of 1.1 (Canada GDP impact of ~\$2.43 billion⁷ divided by government funding of \$2.2 billion), even without the tourism impacts and potential positive GDP impacts in the post-Games, legacy period.

Government expenditures would also be partially recovered by increased tax revenues. The Conference Board estimates incremental taxes (direct and indirect impacts, excluding tourism) from the Games could be \$29 million for the City of Calgary, \$152 million for the Province of Alberta and \$281 million for the Government of Canada. Across Canada, other provinces could also see an estimated \$30 million in incremental taxes and other municipalities could see \$23 million. See [section 8.5](#) for additional details on these tax estimates.

The Games also introduce a sizeable amount of foreign money into the economy in the form of foreign investment, trade, and tourism. Current CBEC estimates indicate foreign investment directly into the Games (i.e., IOC contributions) would be \$700 million. While increased foreign investment and trade have been noted as potential positive impacts of hosting, they have not been included in the impact estimates. The Conference Board estimated the Games would result in incremental tourism expenditure of \$549 million contributing \$455 million to Canada’s GDP through direct and indirect impacts, as well as additional impacts to labour income, employment, and government taxes.

Given these findings on the impacts relative to government investments, it appears the Games could offer an attractive investment opportunity that stimulates the economies of Calgary, Alberta and Canada, as well as introduces the opportunity to capture foreign money through investments, trade, and tourism.

⁷ \$2.43 billion represents the average of Deloitte’s \$2.66 and the Conference Board’s \$2.21, excluding tourism.

8.3.2 ESTIMATED TOURISM IMPACTS

Both the Conference Board and Deloitte reports analyzed the potential tourism impacts from hosting the Games. Findings indicate there would be sizeable tourism benefits in both during the Games and in the post-Games periods. Deloitte reviewed quantitative and qualitative findings from past Winter Olympics in Canada, but did not quantitatively assess the net impact on tourism Calgary could observe from hosting the Games. The Conference Board did estimate incremental tourist numbers and spending from the Games, with key findings presented below:

From the lead up and hosting years of the Games, the province would see an incremental tourism impact of **130,000 additional visitors, spending approximately \$296 million.** This is inclusive of accounting for ‘crowding out’ or ‘displacement’ effects.

Legacy tourism benefits of the Games would come through **529,000 additional overnight out-of-province visitors spending approximately \$320 million from 2027 to 2040.** This legacy analysis also addresses the crowding out effects observed from the Vancouver Games.

8.3.3 LONG-TERM SOCIO-ECONOMIC IMPACTS

Both the Conference Board and Deloitte reports noted potential long-term socio-economic impacts from hosting the Games:

Long-term economic impacts identified by Deloitte include: tourism attraction, economic development and **diversification, legacy housing infrastructure benefits, human capital attraction and development, as well as increased exports and investment attraction (see Appendix 8A for details).**

Social and environmental impacts that could be realized, as identified by Deloitte, included: community **development and revitalization, health and safety improvements, Indigenous community inclusion, engagement of youth and the education sector, environmental sustainability benefits, and increased civic pride.**

It is noted within the reports that these benefits do not come automatically from hosting the Games, and that deliberate strategies and tactics should be leveraged to realize them. These benefits could also represent the most significant lasting impacts of the Games if effectively captured, and should be viewed as potential additional upsides to the quantitative impact estimates outlined in other sections of this report. Agencies in Calgary and region such as Tourism Calgary and Calgary Economic Development will need to be proactively engaged in activating the long-term potential benefits of hosting the Games.

8.4

ESTIMATED TAX IMPACTS

While both Deloitte and the Conference Board have estimated impacts to government taxes in their reports, Deloitte has only modelled federal, provincial and municipal product and production taxes (such as provincial sales tax, harmonized sales tax (HST), excise tax, duty tax, air transportation tax, import duties, environment tax, gallon tax, trading profits, gas tax, amusement tax, other provincial consumption taxes, and various taxes on production). In addition to product and production taxes, the Conference Board has modelled a series of taxes on incomes, contributions to social insurance plans, as well as the sale of government goods and services. A detailed breakdown of these taxes is provided in figures 8.2 and 8.3 below.

Figure 8.2 Estimated government tax impacts, including tourism

Direct and Indirect Tax Impacts	Deloitte ⁱ				Conference Board ⁱⁱ			
	Municipal ⁱⁱⁱ	Provincial	Federal	Total	Municipal ⁱⁱⁱ	Provincial	Federal	Total
Impacts to Calgary (C\$ M 2017, incl. tourism)					39 ^{iv}	135	223	397
Impacts to Alberta (C\$ M 2017, incl. tourism)					57	186 ^{iv}	304	546
Impacts to Canada (C\$ M 2017, incl. tourism)	38	43	28	109	66	220	356 ^{iv}	643

- i. The scope of the Deloitte report covered estimates on federal, provincial and municipal product and production taxes such as provincial sales tax, HST, excise tax, duty tax, air transportation tax, import duties, environment tax, gallon tax, trading profits, gas tax, amusement tax, other provincial consumption taxes, and various taxes on production.
- ii. The scope of the Conference Board report has covered estimated taxes from incomes, contributions to social insurance plans, product and production, as well as the sale of government goods and services.
- iii. Municipal taxes, as defined by the Conference Board, include municipal property taxes (paid by business) as well as the tourism levy that is paid by business for the short-term rental of accommodation. The municipal property taxes (net of the tourism levy) are considered incremental due to the additional revenue opportunities provided by the 2026 Olympic Winter Games to existing Calgary businesses that would either expand operations of existing businesses or stimulate the creation of new businesses in Calgary. Municipal taxes, as defined by Deloitte include municipal product and production taxes. Not all municipalities have such taxes, and the City of Calgary may not currently collect all the taxes that were estimated; however the city could explore implementing new forms of taxation in the lead-up to the Games.
- iv. These impact numbers represent the taxes attributed to the government within the stated jurisdiction (i.e. the \$39 million represents municipal taxes to the City of Calgary, the \$186 million represents provincial taxes to the Province of Alberta, and the \$356 million represents federal taxes to the Government of Canada).

Figure 8.3 Estimated government tax impacts, excluding tourism

Direct and Indirect Tax Impacts	Deloitte ⁱ				Conference Board ⁱⁱ			
	Municipal ⁱⁱⁱ	Provincial	Federal	Total	Municipal ⁱⁱⁱ	Provincial	Federal	Total
Impacts to Calgary (C\$ M 2017, excl. tourism)					29 ^{iv}	108	163	300
Impacts to Alberta (C\$ M 2017, excl. tourism)					44	152 ^{iv}	233	430
Impacts to Canada (C\$ M 2017, excl. tourism)	38	43	28	109	52	182	281 ^{iv}	515

- i. The scope of the Deloitte report covered estimates on federal, provincial and municipal product and production taxes such as provincial sales tax, HST, excise tax, duty tax, air transportation tax, import duties, environment tax, gallon tax, trading profits, gas tax, amusement tax, other provincial consumption taxes, and various taxes on production.
- ii. The scope of the Conference Board report has covered estimated taxes from incomes, contributions to social insurance plans, product and production, as well as the sale of government goods and services.

- iii. Municipal taxes, as defined by the Conference Board, include municipal property taxes (paid by business) as well as the tourism levy that is paid by business for the short-term rental of accommodation. The municipal property taxes (net of the tourism levy) are considered incremental due to the additional revenue opportunities provided by the 2026 Olympic Winter Games to existing Calgary businesses that would either expand operations of existing businesses or stimulate the creation of new businesses in Calgary. Municipal taxes, as defined by Deloitte include municipal product and production taxes. Not all municipalities have such taxes, and the City of Calgary may not currently collect all the taxes that were estimated; however the city could explore implementing new forms of taxation in the lead-up to the Games.
- iv. These impact numbers represent the taxes attributed to the government within the stated jurisdiction (i.e. the \$29 million represents municipal taxes to the City of Calgary, the \$152 million represents provincial taxes to the Province of Alberta, and the \$281 million represents federal taxes to the Government of Canada).

Figure 8.4 Detailed Conference Board tax impacts

Tax impact breakdown	Direct	Indirect	Direct and Indirect
Impacts to Calgary (C\$ M 2017, incl. tourism)			
Total Taxes	339.5	57.5	397
Income Taxes	121.7	21.4	143.1
Total Taxes	339.5	57.5	397
Income Tax	121.7	21.4	143.1
Corporate Tax	23.7	7	30.7
Social Security Contributions	72.3	13.2	85.5
Federal & Provincial Sales Tax	31.3	0	31.3
Other Federal & Provincial Tax ⁱ	58.7	8.8	67.5
Municipal Tax	31.9	7	38.9
Impacts to Alberta (C\$ M 2017, incl. tourism)			
Total Taxes	415.2	131	546.2
Income Taxes	154.4	48.9	203.3
Corporate Tax	30.7	16.2	46.9
Social Security Contributions	89.3	30.1	119.4
Federal & Provincial Sales Tax	32.3	0	32.3
Other Federal & Provincial Tax	68	19.8	87.8
Municipal Tax	40.6	16.1	56.7
Impacts to Canada (C\$ M 2017, incl. tourism)			
Total Taxes	449.4	193.9	643.3
Income Taxes	176.6	70.9	247.5
Corporate Tax	30.9	24	54.9
Social Security Contributions	95	45	140
Federal & Provincial Sales Tax	32.3	0	32.3

i. Other federal and provincial taxes include gasoline taxes, excise taxes, and import duties.

8.5

DETAILED ASSESSMENT OF METHODOLOGIES AND INPUTS

An overview of the methodologies employed in each report, as well as a reconciliation to CBEC expenditure estimates referenced earlier in the report to the expenditures used in the econometric modelling, is provided below:

Figure 8.5 Overview of methodologies of reports

Methodology Aspect	Deloitte	Conference Board
Economic Impact Model Utilized	Statistics Canada Interprovincial Input-Output Model with supplementary regional analysis to develop municipal-level impacts	Statistics Canada Input-Output tables with supplementary analysis to develop national, provincial and metropolitan economic contribution models
Expenditures Quantified	Capital and operating expenditures from: <ul style="list-style-type: none"> ■ Bid development ■ Venue and facility development ■ Games operations ■ Security ■ Required government spendingⁱ 	Capital and operating expenditures from: <ul style="list-style-type: none"> ■ Bid development ■ Venue and facility investment ■ Games operations ■ Security ■ Required government spending ■ Tourism spending
Impacts Quantified	Direct and indirect impacts on: <ul style="list-style-type: none"> ■ Industry output ■ Value-added contribution (GDP) ■ Employment (FTE-yearsⁱⁱ) ■ Labour income (wages, salaries and supplementary income) ■ Government taxes 	Direct, indirect and induced impacts on: <ul style="list-style-type: none"> ■ Value-added contribution (GDP) ■ Employment (person- years) ■ Labour income (wages) ■ Government taxes Note that for the purpose of comparing the two reports, only the direct and indirect impacts have been discussed in this summary, and where possible tourism impacts have been separated

Methodology Aspect	Deloitte	Conference Board
Impacts Identified and Described but not Quantified	Structuring (legacy) economic impacts as well as social and environmental impacts (see section 8.3.3 for details)	Legacy impacts observed from a literature review of post-Games impacts
Key Differences in Scope	<p>Tourism:</p> <ul style="list-style-type: none"> ■ Deloitte did not develop a baseline forecast for tourism, but did review the quantitative and qualitative impacts observed in past Canadian Winter Games <p>Taxes:</p> <ul style="list-style-type: none"> ■ Deloitte assessed product and production taxesⁱⁱⁱ <p>Legacy impacts:</p> <ul style="list-style-type: none"> ■ Deloitte identified and described several potential structuring and legacy impacts from the Games 	<p>Tourism:</p> <ul style="list-style-type: none"> ■ The Conference Board developed a baseline forecast for tourism and estimated the incremental number of tourists and resulting expenditure that hosting the Games could stimulate <p>Taxes:</p> <ul style="list-style-type: none"> ■ The Conference Board assessed numerous taxes in addition to product and production taxesⁱⁱⁱ <p>Legacy impacts:</p> <ul style="list-style-type: none"> ■ The Conference Board has included legacy tourism spending in their modelling (\$212M from 2031 to 2024)

- i. Required government spending is based off of CBEC estimates on what government spending would be required to bid for and host the Games, separate from what was considered discretionary government spending which was excluded from the impact modelling
- ii. The Deloitte report refers to their employment impacts as 'FTE (full-time equivalent)-years' and for the purpose of this summary the impacts have been reported as person-years for consistency between the two reports
- iii. The scope of the Deloitte report covered estimates on federal, provincial and municipal product and production taxes such as provincial sales tax, H.S.T., excise tax, duty tax, air transportation tax, import duties, environment tax, gallon tax, trading profits, gas tax, amusement tax, other provincial consumption taxes, and various taxes on production, whereas the scope of the Conference Board report has covered estimated taxes from incomes, contributions to social insurance plans, product and production, as well as the sale of government goods and services. Additional details can be found in both reports in Appendices 8A and 8B, tax impacts are discussed in [section 8.3](#) and a detailed breakdown of the tax impacts is provided in [section 8.4](#).

Both parties (Deloitte and the Conference Board) were provided with the same expenditure estimates by CBEC.

Each party made their own decisions on specific inclusions and exclusions based on their respective methodologies.

These differences are highlighted in the following table and should be taken into consideration when reviewing the impacts.

Figure 8.6 Reconciliation of CBEC estimates and modelled expenditures

CBEC Estimates	Expenditures modelled by Deloitte	Expenditures modelled by Conference Board ⁱ
Bid Budget		
+ \$35M for operating cost + \$5M for contingency	+ \$35M for operating cost Excluded \$5M contingency + \$12M in required gov't spending	+ \$35M for operating cost Excluded \$5M contingency
= \$40M for bid	= \$47M for bid	= \$35M for bid

Games Operations

+ \$2.38B for operating cost + \$235M (10%) for contingency	+ \$2.38B for operating cost Excluded 10% contingency - \$350M from removal of royalties + \$20M from estimate refinements = \$ 2.05B for operations (<i>subtotal</i>) - \$173M in technology spend likely to be sourced outside of Canada + \$288M in required gov't spending	+ \$35M for operating cost Excluded \$5M contingency
= \$2.62B for operations	= \$2.16B for operations	= \$35M for bid

Venues and Facilities

+ \$400M for facilities + \$150M for accommodations	+ \$392.6M for facilities (unrounded) + \$107.3M for accommodations (difference from review of concept and refinement of costs)	+ \$392.6M for facilities (unrounded) - \$39.5M in capital maintenance + \$107.3M for accommodations (difference from review of concept and refinement of costs)
= \$550M for venues and facilities	= \$500M for venues and facilities	= \$460M for venues and facilities

Security

+ \$510M for opex and capex + \$100M for contingency	+ \$506.7M for opex and capex + \$101.3M for contingency	+ \$506.7M for opex and capex + \$101.3M for contingency
= \$610M for security	= \$608M for security (unrounded)	= \$608M for security (unrounded)

Government Expenses

= \$300M for required expenses	= \$300M for required expenses (allocated to bid and operations)	= \$300M for required expenses (allocated here)
Potential for \$500M in discretionary expenses	Excluded \$500M in discretionary expenses	Excluded \$500M in discretionary expenses

Other

N/A	N/A	+ \$336M in tourism spend + \$212M in legacy tourism spending
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Total

= ~\$4.1B	= ~\$3.3B	= ~\$4.0Bⁱ
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- i. While the Conference Board has stated these expenditure items in their report, it should be noted that the stated numbers do not fully reflect the adjustments made during the modelling. For example, the Deloitte report has explicitly noted that \$173 million in technology spend was excluded, whereas the Conference Board has included those costs in their modelling but assumed that they would be imported internationally and therefore have a very minor impact in Canada. Similarly, for security, the Conference Board has made adjustments to the inputs for wages paid to Canadian security forces that may have been compensated regardless of the Games. Given these adjustments, the difference between the expenditures modelled by Deloitte and the Conference Board is smaller than it may appear, and the Conference Board may have ultimately modelled lower expenditures than Deloitte.

There are several key differences to note from this reconciliation of expenditures (note that a series of graphs depicting these differences is also provided in [section 8.6](#)):

The differences in total expenditures would suggest economic impacts may be greater if the later-stage CBEC cost estimates were modelled (i.e., the \$20 million increase in Games operations costs from estimate refinements). Earlier estimates from April 2017 were utilized given the need for Deloitte and the Conference Board's reports to be completed in parallel to CBEC's report. As such, a cut-off period for adjusting model input estimates was required and adjustments were made between the cut-off and report writing periods. The impacts assessed through these reports can be considered conservative as they model expenditures that are lower than what is now anticipated by CBEC.

As their analyses were conducted independently, Deloitte and the Conference Board made slight adjustments to the inputs received which resulted in their modelled expenditures being slightly different:

- Deloitte excluded \$173 million in Games operations costs which represent a portion of spend on Olympic technology contracts that was assumed to be sourced outside of Canada.

- The Conference Board removed \$39.5 million in facilities costs due to an assumption this amount of capital maintenance spend would have occurred regardless of the Games.

- The Conference Board modelled two additional expenditure lines, \$212 million in legacy spending from 2031-2040, and \$336 million in expenditures from incremental tourists.

From this review, it is clear there are some differences in the methodologies, assumptions and inputs between the two economic impact reports. However, the expenditure inputs used by both parties are within a reasonable range of each other of six percent (when excluding Conference Board's tourism (initial and legacy) expenditure). Furthermore, CBEC's most recent estimated expenditures are approximately 17 to 25 per cent higher than the modelled expenditures in both reports (after excluding the incremental tourism spending from the Conference Board report). Deloitte and the Conference Board were provided with preliminary expenditure estimates due to a required cut off period to allow for a timely submission of this summary. Therefore, the impacts presented may be conservative in comparison to the expenditures estimated and outlined by CBEC.

8.6

EXPENDITURE RECONCILIATION GRAPHS

To assist in understanding and contextualizing the differences in the expenditures modelled by Deloitte and the Conference Board versus the expenditure estimate stated by CBEC, a series of graphs are provided below.

Figure 8.7 Expenditure estimates for bid development

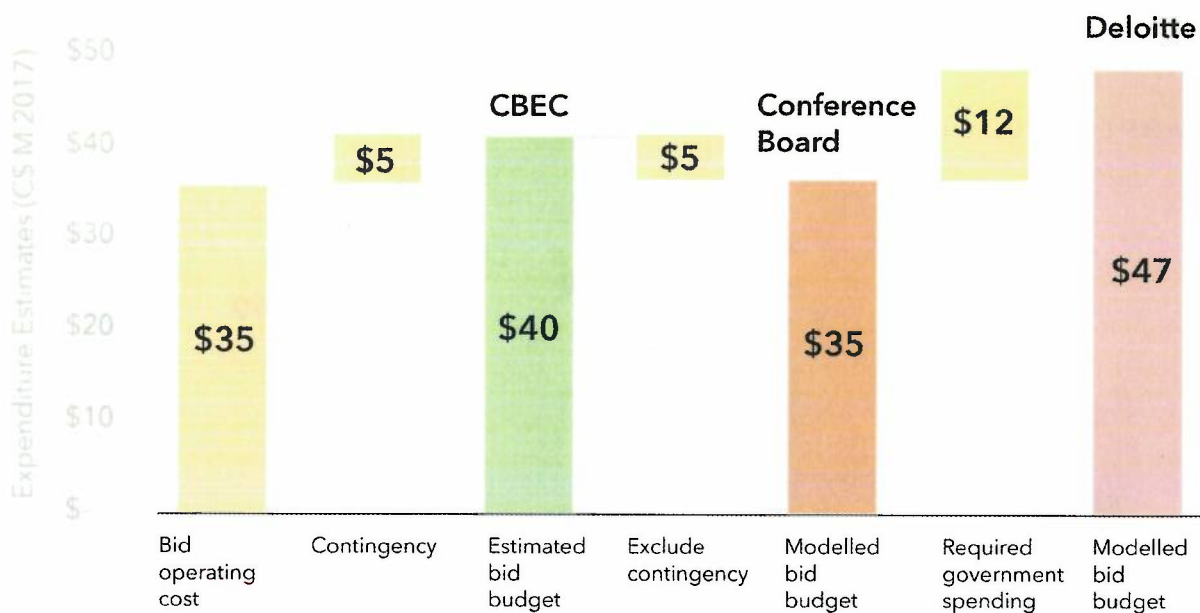


Figure 8.8 Expenditure estimates for Games operations

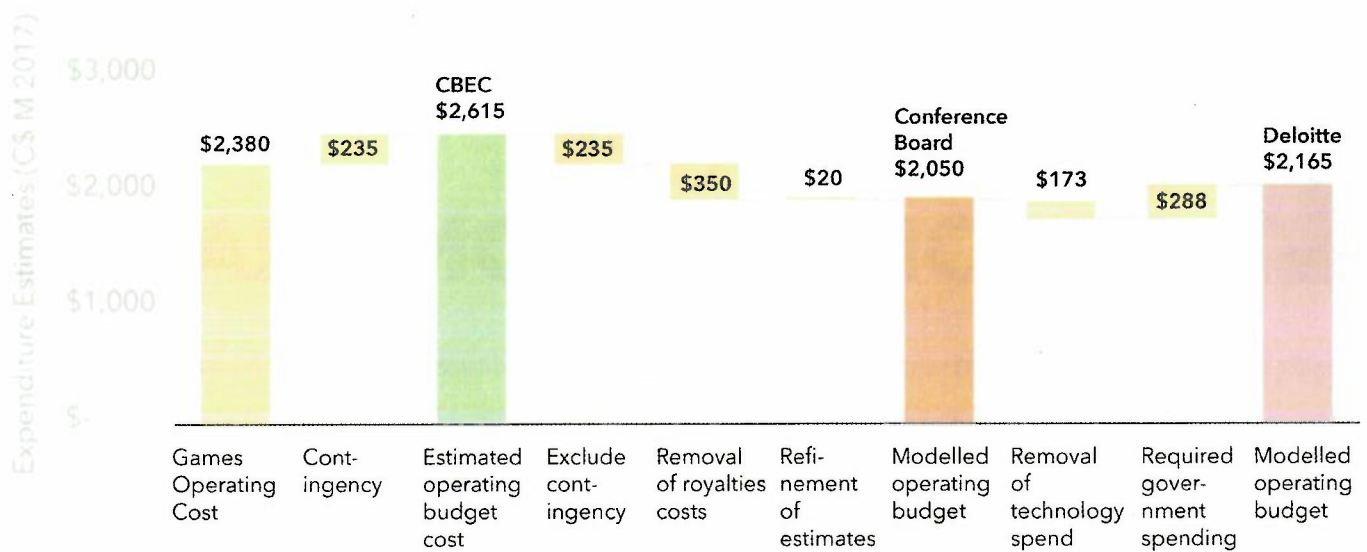


Figure 8.9 Expenditure estimates for venues and facilities

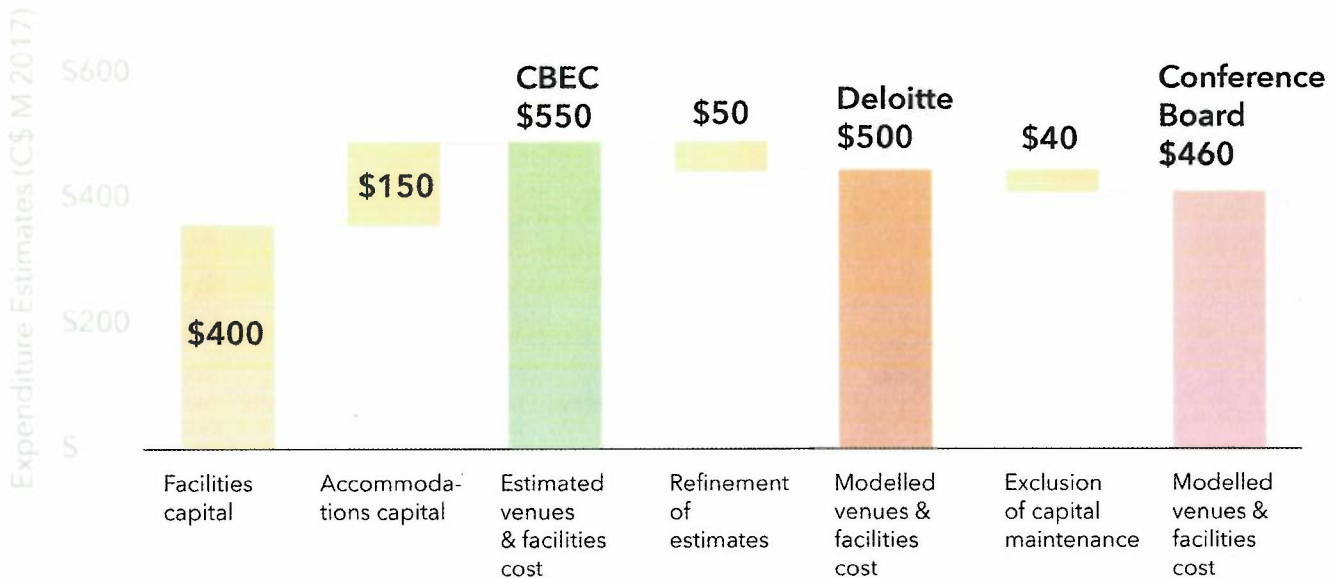


Figure 8.10 Expenditure estimates for security

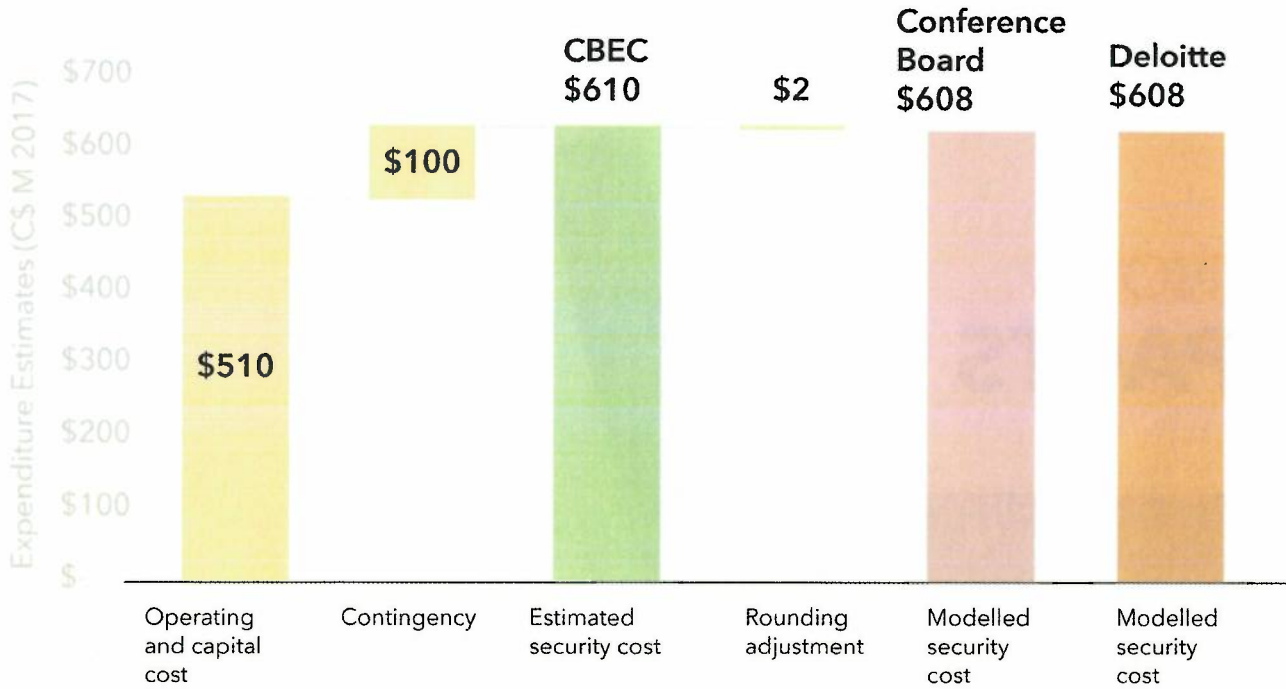
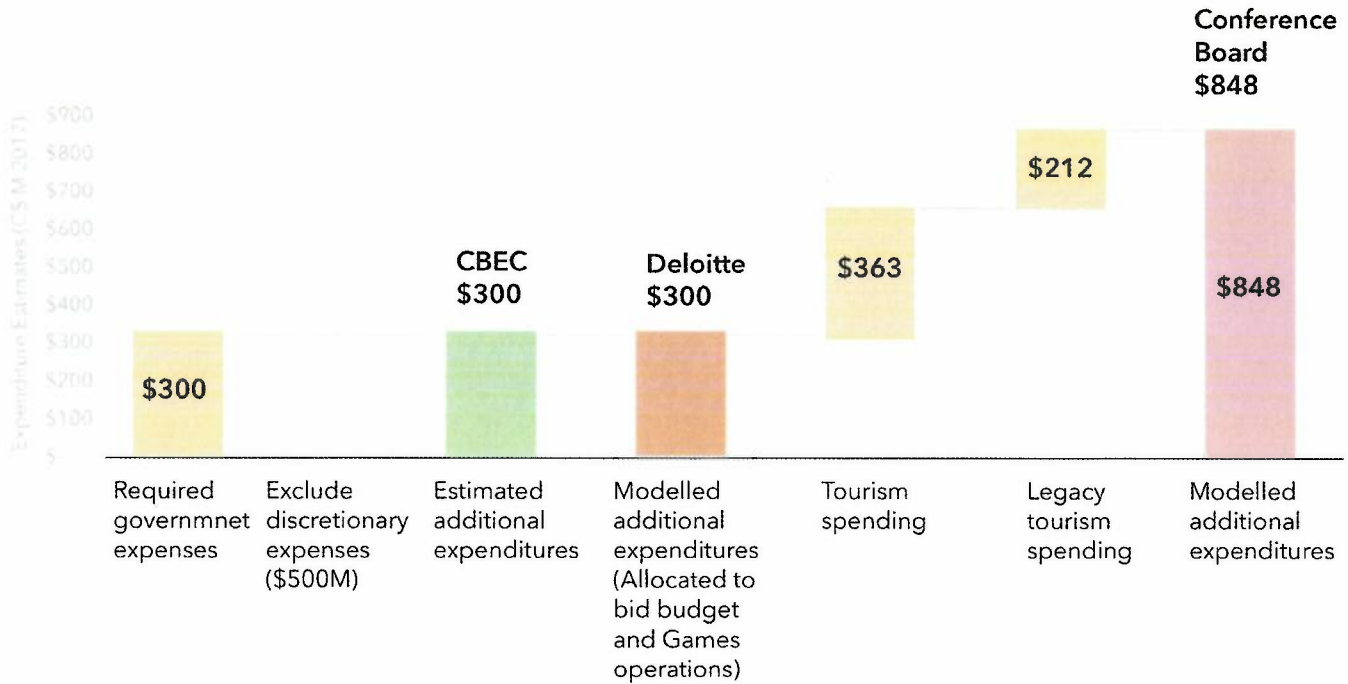


Figure 8.11 Expenditure estimates for government and other expenses





SECTION 9. IMPACTS



9.0 OVERVIEW

To answer the question of how the 2026 Olympic and Paralympic Winter Games (OPWG) Games and its legacy fit into Calgary's values and long-term vision, the Calgary Bid Exploration Committee (CBEC) assessed the likely impacts on the city and surrounding region. We considered third-party academic research regarding impacts in other Olympic cities, the experience gained in Calgary in 1988 and input from our stakeholder and community research.

Should the City of Calgary choose to proceed with bidding, this analysis will be helpful to the bid committee and organizing committee in defining and delivering on high-priority positive impacts and in developing mitigation strategies for possible negative impacts.

We defined potential impacts using the “triple bottom line” framework favoured by the City of Calgary, adding “Sport” to the cultural assessment. To answer the question of how the OPWG could fit into Calgary, we asked the following questions:

1 Social impacts:

How could the event impact the well-being of Calgarians?

2 Sport and cultural impacts:

How could the event impact the ability and likelihood of Calgarians to live active and creative lives?

3 Economic impacts:

How could the event impact the region's economy and economic opportunities for Calgarians?

4 Sustainable environment:

How might the event impact the natural environment in Calgary and the region?

We learned through this analysis that Calgary and the surrounding region must be conscious and deliberate in planning and executing a Games to achieve the positive outcomes that are priorities for the city. The Games can be a launch pad for a demonstrably better city, but only if the desired outcomes are planned, stewarded and measured.

Specifically, Calgarians and residents of the Bow Valley corridor want to see a Games that leaves no “white elephant” facilities behind, sparks civic pride and volunteerism, has a positive economic impact, engages the community beyond merely sports and athletics, and leaves a positive legacy for the region and especially for Indigenous Peoples. We believe that all of these outcomes are achievable, with diligent planning, community engagement and measurement throughout the process.

The research exercise was also helpful in identifying negative impacts or failed objectives in past Games, enabling us to learn from experience and to identify concrete actions necessary to mitigate negative outcomes. Such outcomes have included cost overruns, facilities that are not well-used after the Games, displacement of people, temporary declines in non-Olympics tourism, and diversion of budgets for cultural and social programming to fund Olympic facilities. This bid exploration effort has been helpful in identifying these risks and measures that can protect against them.

We believe that it is possible to plan, bid for, and host an OPWG that will have a measurable positive social, cultural, economic and environmental effect on our city and the surrounding region.

9.1

OLYMPIC IDEALS

The fundamental principles upon which the Olympic Movement has been built are best captured in the Olympic Charter, the International Olympic Committee (IOC)'s governing document (see *Appendix 9A: Olympic Charter*).

The core values of the Olympic Movement, as described in the Olympic Charter, are:

Excellence:

Excellence means doing the best we can, on the field of play or in our professional life. The important thing is not winning, but taking part, making progress and enjoying the healthy combination of body, will and mind.

Respect:

This includes respect for yourself and your body, for other people, for rules and regulations, for sport and the environment.

Friendship:

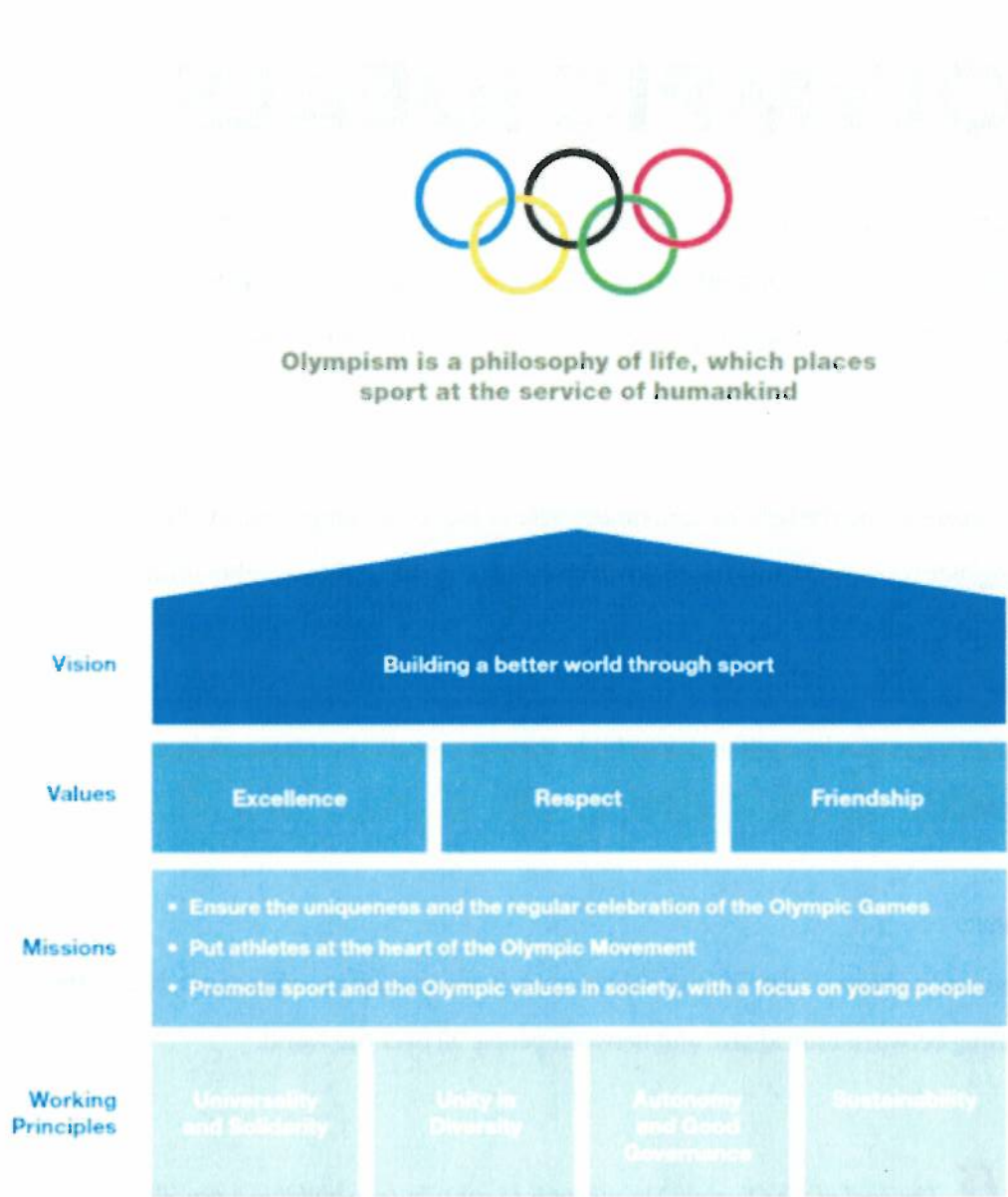
Friendship is at the heart of the Olympic Movement. It encourages us to see sport as an instrument for mutual understanding between individuals, and between people all over the world.

“*The goal of the Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport practised without discrimination of any kind, in a spirit of friendship, solidarity and fair play.*”

- Olympic Charter

Figure 9.1 provides a visual from *IOC Annual Report 2015: Credibility, Sustainability and Youth* illustrating the organization’s philosophy, vision, values, missions and working principles.

Figure 9.1



The activities undertaken by those involved in Olympic Movement also serve to create a framework and further definition. As detailed in *Appendix 9B: International Olympic Committee – About the Organisation*, the IOC highlights the following range of activities:

- Promoting sport and competitions through the intermediary of national and international sports institutions worldwide.
- Cooperation with public and private organizations to place sport at the service of mankind.
- Assistance to develop “Sport for All.”
- Advancement of women in sport at all levels and in all structures, with a view to achieving equality between men and women.
- Opposition to all forms of commercial exploitation of sport and athletes.
- The fight against doping.
- Promoting sports ethics and fair play.
- Raising awareness of environmental problems.
- Financial and educational support for developing countries through the IOC program entitled Olympic Solidarity.

Fundamental principles of Olympism

The IOC has identified a set of key principles that offer insight into the philosophy of Olympism and provide deeper understanding of the underlying objectives of the movement. As outlined in *Appendix 9A: Olympic Charter*, these principles are as follows:

■ Olympism is a philosophy of life, exalting and combining in a balanced whole the qualities of body, will and mind. Blending sport with culture and education, Olympism seeks to create a way of life based on the joy of effort, the educational value of good example, social responsibility and respect for universal fundamental ethical principles.

■ The goal of Olympism is to place sport at the service of the harmonious development of humankind, with a view to promoting a peaceful society concerned with the preservation of human dignity.

■ The Olympic Movement is the concerted, organized, universal and permanent action, carried out under the supreme authority of the IOC, of all individuals and entities who are inspired by the values of Olympism. It covers the five continents. It reaches its peak with the bringing together of the world's athletes at the great sports festival, the Olympic Games. Its symbol is five interlaced rings.

■ The practice of sport is a human right. Every individual must have the possibility of practicing sport, without discrimination of any kind and in the Olympic spirit, which requires mutual understanding with a spirit of friendship, solidarity and fair play.

■ Recognizing that sport occurs within the framework of society, sports organizations within the Olympic Movement shall have the rights and obligations of autonomy, which include freely establishing and controlling the rules of sport, determining the structure and governance of their organizations, enjoying the right of elections free from any outside influence and the responsibility for ensuring that principles of good governance be applied.

The enjoyment of the rights and freedoms set forth in this Olympic Charter shall be secured without discrimination of any kind, such as race, colour, sex, sexual orientation, language, religion, political or other opinion, national or social origin, property, birth or other status.

Belonging to the Olympic Movement requires compliance with the Olympic Charter and recognition by the IOC.

The importance of culture in the Olympic Movement

In terms of building a cultural alignment within the principles of the Olympic Movement, Baron Pierre de Coubertin's vision when he founded the modern Olympic Movement in 1894 was that the Games should be the marriage of sport and art.

“ Sport and culture are two ‘pillars’ that support the mission and vision behind today’s Olympic Games. De Coubertin wanted to bring people together in a way that was both peaceful and competitive. He wanted to give them an opportunity to get to know each other,” says Taylor. A lot of people aren’t aware of that. They think it’s all about gold medals. ”

- Burke Taylor,

Executive Producer for Vancouver’s 2010 Cultural Olympiad

The Cultural Olympiad is a specific obligation set out in the Host City Contract obligating any Host City to promote and integrate arts and cultural activities into the staging of the Games, with a specific emphasis in the four years leading up to the Games (see *Appendix 4E: Host City Operational Requirements*). As set out in the Host City Contract Operational Requirements: “Celebrating the culture of the Host City and the Host Country adds to the festive atmosphere of the Olympic Games. Culture is made up of projects and events that celebrate local, national and international culture while also drawing on the Olympic values to engage the widest possible population in the Host City and Host Country during the four-year Olympiad. The Cultural Olympiad provides an opportunity to engage a wide cross-section of the Host Country’s population in the spirit of the Games and the Olympic values — particularly young people and those with interests outside sport.”

The Host City Contract Operational Requirements go on to say: “Because the Cultural Olympiad can extend over four years, it enables the development of long-term cultural projects with significant legacy value. The Cultural Olympiad culminates in a dedicated cultural festival during the Olympic Games. The cultural programme for the Paralympic Games should have its own distinctive elements while being integrated and seeking efficiencies with the Cultural Olympiad.”

In the Host City Contract Operational Requirements, the IOC identifies the key success factors for the Cultural Olympiad:

- Effective partnerships with a variety of stakeholders, including cultural institutions, artists, performers, government agencies and Olympic Marketing Partners.
- A strong spirit of co-production with the IOC and its entities.
- Various programmes aligned with the Olympic values.

In addition, the Host City Contract Operational Requirements highlight the necessity of co-operation and co-ordinating, noting that: “Close coordination and cooperation with external partners and other OCOG [Organizing Committee for the Olympic Games] areas are also essential. The OCOG’s Culture area must be the driving and controlling force for the Cultural Olympiad, but external partners will provide much of the content and resources.”



9.2 **SOCIAL AND OTHER IMPACTS FOR CALGARY**

The Calgary Bid Exploration Committee (CBEC) used the City of Calgary's Triple Bottom Line Framework and Sustainability Appraisal tool to evaluate the potential impacts of the prospective 2026 Olympic and Paralympic Winter Games (OPWG). To guide us, we commissioned a third- party report that studied available academic research regarding the social impacts, legacies and outcomes in cities that have previously hosted Olympic Games. The study, conducted by the Halcyon International Sport Event Consultancy, can be found in its entirety in *Appendix 9C: Social Impacts of Host Cities*. The report categorized both positive and negative impacts and recommended mitigation strategies to ensure a positive overall impact and legacy.

Our key take-away from this analysis is that achieving the positive outcomes an Olympic city has identified for itself requires a city to be conscious and deliberate in planning and executing a Games. Commonly assumed outcomes such as increased volunteerism or a healthier, more active society cannot be assumed without a focused effort to use the Games as a launch pad for desired long-term impacts in the community.

CBEC used the information contained in the Halcyon report combined with the input from our public and stakeholder consultation to define prospective positive and negative potential impacts of the OPWG on Calgary.

Conventionally, the “triple bottom line” includes economic, environment and social considerations. For our purposes, we revised that framework to reflect the following considerations:

■ **1. Social impacts:**

How could the event impact the well-being of Calgarians?

■ **2. Sport and cultural impacts:**

How could the event impact the access and decisions of Calgarians to live active and creative lives?

■ **3. Economic impacts:**

How could the event impact Calgary’s economy and economic opportunities for Calgarians?

■ **4. Sustainable environment:**

How might the event impact the natural environment in Calgary?

Should the City of Calgary choose to proceed with bidding for the 2026 OPWG, this analysis will assist the bid committee and organizing committee in defining and delivering on high-priority positive impacts, and developing mitigation strategies for potential negative impacts.

SOCIAL IMPACTS

SOCIAL IMPACTS			NEGATIVE IMPACTS
OBJECTIVE EQUITY, SOCIAL INCLUSION AND FAIR ACCESS	POSITIVE IMPACTS Fair Access i. Physical accessibility is already in place to facilitate barrier-free attendance within much of the city. ii. Venues will be accessible by public transit. Public transit vehicles will be barrier-free. Transit services beyond the City boundaries will be made to accommodate those with reduced mobility. iii. Modifications will be made to existing venues to increase accessibility, improving access recreation and sport facilities for Calgarians with disabilities. iv. Access points to each cluster and venue will have screening lanes to accommodate persons with disabilities and/or seniors. v. All new venues will be in full compliance with city accessibility standards. vi. A ticket pricing strategy similar to Vancouver 2010 will be used, with 40 per cent of tickets will be available for less than \$100 to minimize financial barriers to attendance vii. We are looking at an innovative concept for the Opening and Closing Ceremonies at Stampede Park to maximize affordable tickets.		Fair Access i. While some cost controls will be put in place, even the least expensive tickets may be beyond the reach of low-earning Calgarians. ii. IOC and sponsors will command a meaningful amount of available tickets, limiting the amount available to citizens and visitors. iii. IOC and sponsors will command all available hotel rooms, making them unavailable to visitors with or without special needs

SOCIAL IMPACTS	
OBJECTIVE	NEGATIVE IMPACTS
<p>EQUITY, SOCIAL INCLUSION AND FAIR ACCESS</p> <p>POSITIVE IMPACTS</p> <p>Inclusion</p> <ul style="list-style-type: none"> i. New construction and building improvements would address barriers encountered by non-English speakers, persons with visual or hearing impairment or other challenges. This application would translate to all OPWG aspects, including the website and headquarters. ii. The City of Calgary's translation services available for over 200 languages when calling 311 offers an example of this inclusivity. 	<p>Inclusion</p> <ul style="list-style-type: none"> i. Currently there is no standardized iconography in place to assist non-English speaking residents and visitors.
<p>Housing</p> <ul style="list-style-type: none"> i. Approximately 800 new housing units for the Games to be converted to affordable housing, including family and supported seniors' units. ii. Approximately 800 new residence rooms on post-secondary campuses or near transit hubs to be converted to student housing post-Games. iii. Approximately 660 new modular housing units to mitigate the gap in available affordable housing; can be easily deployed across the province. iv. Athletes' Villages (6,000 beds) will be transitioned to a mix of market and non-market housing: <ul style="list-style-type: none"> Approximately 20 per cent of the Athletes' Village would be transitioned to attainable housing with a 25 per cent reduction in the selling price. A portion of the Mountain Athletes' Village would be converted to affordable housing for residents working in Canmore and Banff. 	<p>Housing</p> <ul style="list-style-type: none"> i. Independent landlords displacing residents in favour of Olympic visitors. ii. Potential for rising rents due to increased accommodation demand.

SOCIAL IMPACTS	
OBJECTIVE	NEGATIVE IMPACTS
<p>EQUITY, SOCIAL INCLUSION AND FAIR ACCESS</p> <p>Physical and Human Legacy</p> <ul style="list-style-type: none"> i. It is within the bid phase that details will emerge on the physical and human legacy associated with hosting the OPWG. ii. The Olympic Oval, WinSport and Nakiska Ski Area have facilitated participation in winter activities by Calgary children, and could have programs to introduce these activities to new immigrants to the area. iii. Affordable housing and increased access to recreational opportunities are two significant legacies. iv. Emergency medical equipment, beds, and modular housing would be forwarded to organizations and groups in need, post-OPWG. v. Potential for alignment of community and city policies, plans and visions in a more expedient and organized fashion. vi. The security systems will be donated or left in place after the Games for the benefit of all Calgarians. 	<p>Physical and Human Legacy</p> <ul style="list-style-type: none"> i. No guarantee that a 2026 Games would yield a financial endowment to operate legacy facilities post-Games. ii. Some legacy facilities, such as ski jumps, naturally cater to high-performance athletes and are less accessible with more barriers to entry for the wider community.

SOCIAL IMPACTS	
OBJECTIVE	NEGATIVE IMPACTS
<p>POSITIVE IMPACTS</p> <p>Diversity</p> <p>i. Inclusion of diverse perspectives and voices will be encouraged in all aspects; however, it is likely to be best represented by:</p> <ul style="list-style-type: none"> ■ comprehensive volunteer positions ■ cultural celebrations <p>ii. Ability to involve Indigenous Peoples in planning at an early stage to ensure meaningful engagement and legacy to advance reconciliation.</p>	<p>Diversity</p> <p>i. Diverse groups may not feel included or engaged in the planning and hosting processes.</p> <p>ii. The bid committee and organizing committee may not engage with affected communities and/or groups early enough; involvement is key for individuals to feel their opinions are heard and valued, and in time for discussion and modification of plans.</p>
<p>POSITIVE IMPACTS</p> <p>Diversity</p> <p>i. Indigenous Peoples in Alberta have expressed a strong desire to be involved in the planning and execution of the OPWG. The structure of their involvement is currently undetermined, however the Four Host First Nations of Vancouver 2010 are recognized as an excellent framework to continue discussions.</p> <p>ii. Involvement could include the placement of [REDACTED] [REDACTED] resulting in employment of Indigenous Peoples.</p>	<p>Indigenous Peoples</p> <p>i. Significant populations of Indigenous Peoples are geographically separated from the urban centre of the Games, making it difficult for them to participate regularly.</p> <p>ii. While consultation with Indigenous Peoples was embarked upon by CBEC, there are no elected members of Treaty 7 leadership at the board level.</p>

SOCIAL IMPACTS	
OBJECTIVE	POSITIVE IMPACTS
ENGAGEMENT AND EMPOWERMENT	<p>New Immigrants</p> <p>i. The participation of new immigrants in sport and volunteerism, both part of the foundation of a Calgary OPWG, helps them learn about Canadian culture and feel more connected with their community.</p>
SAFETY	<p>Security</p> <p>i. Any new builds, [REDACTED] will have security features incorporated in the design stage. This process will include a Crime Prevention Through Environmental Design (CPTED) evaluation and a broader security vulnerability assessment.</p> <p>ii. As part of this exploration process, security vulnerability assessments have already been completed for existing sites being contemplated as venues.</p> <p>iii. As part of the current process, enhancements will be incorporated into each site's existing security to ensure a high level of safety for residents, workers and visitors.</p> <p>iv. Similar to the Vancouver 2010 Integrated Security Unit, Calgary will use a combination of officers from Canadian provincial, municipal and Aboriginal law enforcement agencies with the addition of the RCMP. Private security and local security, outside of professional law enforcement, will also be used.</p> <p>v. The security plan will emphasize use of minimally invasive security measures, providing opportunities for security personnel to train in these newer technologies.</p> <p>vi. A local company will be used to integrate these security measures.</p> <p>vii. There is no foreseeable permanent displacement of low-income or vulnerable Calgarians due to security.</p>
	<p>NEGATIVE IMPACTS</p> <p>New Immigrants</p> <p>i. Immigrants coming to Calgary from warmer climates may lack interest in participating in many winter sports.</p>
	<p>Security</p> <p>i. Venues will see enhanced security perimeters compared to what Calgarians are used to such as the security perimeter of the Saddledome pushed to the boundary of Stampede Park.</p> <p>ii. Homeless and marginalized Calgarians may be temporarily displaced and have their mobility restricted due to increased security.</p> <p>iii. Expanded use of security technologies, such as CCTV, could be perceived as a privacy violations.</p> <p>iv. Increased levels of security due to the Games can disrupt the lives of Calgarians or their transportation and access to community spaces.</p> <p>v. Each site must ensure a high level of safety for residents, workers and visitors.</p> <p>vi. Necessary security measures may cause splintering of urban spaces.</p> <p>vii. Enhanced security barriers could impede travel within the city.</p>

SOCIAL IMPACTS	
OBJECTIVE	POSITIVE IMPACTS
RESILIENCY	<p>Resiliency</p> <p>i. Emergency services, particularly police and FMS, have been planned into each venue so as not to impact the regular response times for the Calgary Police Service (CPS) in their overall responsibility to the citizens of Calgary. Distinct emergency services will be in place for both athletes and spectators.</p> <p>ii. Each venue or cluster will have dedicated security personnel and emergency medical staff to manage any incident that may arise and from a security perspective prevent incidents from occurring.</p> <p>iii. Open air celebration areas include plans for dedicated security and emergency medical resources to manage those areas, so as not to create a drain on the existing CPS or EMS resources.</p> <p>iv. To limit the impact on businesses operating at the same time but not directly connected with the Olympics, solutions such as a tele-working and public information programs, will be explored to help businesses run as usual.</p> <p>v. Calgary has experience operating under “business as unusual” conditions, both with the 2013 flood and the annual Calgary Stampede.</p>
	NEGATIVE IMPACTS
	<p>Resiliency</p> <p>i. Traffic disruptions will occur, both within the City and on the TransCanada highway. These disruptions will be concentrated around Olympic venues such as Stampede Park and WinSport and near public celebration spaces like the Red Mile.</p> <p>ii. Calgary Transit disruptions, particularly around popular events.</p> <p>iii. Increased health risks including influenza, communicable diseases and sexually transmitted infections, due to large amounts of visitors and Olympic guests.</p> <p>iv. Stampede Park is located on a floodplain. A large flood in any summer during pre-Games construction could lead to delays, cost overruns, displacement of residents, loss of employment and permanent loss of residential and commercial properties.</p>

SPORT / CULTURAL IMPACTS

SPORT / CULTURAL IMPACTS	
OBJECTIVE	POSITIVE IMPACTS
GROW CALGARY'S CULTURAL SECTOR AND CREATIVE INDUSTRIES	<p>Showcase</p> <ul style="list-style-type: none"> i. OPWG provides an opportunity to showcase the cultural sector and different cultural groups of Calgary, and a positive display could leverage Calgary for cultural tourism. ii. The OPWG can be used to showcase Calgary as a desirable place to live and work, and possibly draw workers from creative industries. iii. There is potential for alignment of arts and cultural sector policies, plans and visions can advance interests in a more expedient and organized fashion. iv. The Cultural Olympiad will support the creation of new work and build partnerships between Calgary and Canadian artists and cultural organizations. v. Increased investment in creative industries to support media requirements leading up to and during the Games. vi. Our concept for Opening and Closing Ceremonies includes lower priced seating around the track at the Stampede Grandstand (approximately 10,000 seats), as discussed in Section 4.2.3.
	<p>NEGATIVE IMPACTS</p> <p>Showcase</p> <ul style="list-style-type: none"> i. Social and cultural programs are typically publicly, privately and corporately funded and therefore might see decreased and diverted financial support due to the OPWG.

SPORT / CULTURAL IMPACTS	
OBJECTIVE	POSITIVE IMPACTS
<p>REINFORCE CENTRE CITY AS THE CULTURAL HEART OF CALGARY</p>	<p>NEGATIVE IMPACTS</p>
<p>City Centre</p> <ul style="list-style-type: none"> i. The concept developed as part of the MFP for a prospective 2026 OPWG enhances the Centre City and aligns well with the Centre City Plan. [REDACTED] ii. High-density living will be encouraged, as well the incorporation of the "complete streets" model for community design. iii. The creation of transit nodes within this area also aligns well with the future the City of Calgary sees for itself. iv. Open air celebrations would take place in or near the Centre City and foster a sense of community. Given the clustering of venues as proposed in the MFP concept, Stampede Park offers opportunity for activation of various celebration activities within a structured secured area. 	<p>City Centre</p> <ul style="list-style-type: none"> i. Homeless and marginalized Calgarians may have their mobility restricted due to increased security.

SPORT / CULTURAL IMPACTS	
OBJECTIVE	POSITIVE IMPACTS
SPORT INFRASTRUCTURE Facilities i. Facilities concepts are to be aligned with community and stakeholder needs. ii. The Master Facilities Plan is designed to fit the OPWG into what is already present or planned for the City of Calgary. The venues need to be adaptable and able to grow with changing needs. This long-term thinking will ensure a strong and beneficial life cycle. iii. The owners of facilities and other stakeholders will be included in the discussion of the design. iv. [REDACTED] [REDACTED]	NEGATIVE IMPACTS Facilities i. Some legacy facilities, such as ski jumps, naturally cater to high-performance athletes and are less accessible with more barriers to entry for the wider community. ii. There is a cost for the ongoing operation and programming of facilities beyond the Games.
CENTRE FOR SPORT EXCELLENCE Sport Excellence i. The celebration of high-performance Canadian athletes also creates a national sense of pride in their achievements and creates positive role models for Olympians-in-training. ii. The OPWG will contribute to building Calgary into an internationally recognized leader in health and wellness and as a "sports city." It is already a base for sport organizations and athlete training, with strengths in sports medicine and kinesiology. The OPWG will build upon these strengths and provide the opportunity for advancements, with a particular focus on technology. An example of this from Vancouver 2010 would be the establishment of the Centre for Sport and Sustainability at the University of British Columbia.	NEGATIVE IMPACTS Sport Excellence i. The OPWG are largely focused on high-performance athletes. ii. May not include children's programs extolling the benefits of sport and wellness. iii. May not provide a model for everyone, including: Lesbian, Gay, Bisexual, Trans and Queer (LGBTQ); Indigenous Peoples; new immigrants; persons with disabilities; and others. iv. May not invite new participation on a "Learn To" basis.

SPORT / CULTURAL IMPACTS	
OBJECTIVE	NEGATIVE IMPACTS
<p>HEALTHY AND ACTIVE CITY</p> <p>Healthy City</p> <ul style="list-style-type: none"> i. Indigenous Peoples have expressed a strong interest in creating a social program that promotes health and wellness. ii. There is a focus on incorporating mixed-use facilities, not just recreational. Similar to facilities currently operating in Calgary that house not only recreation, but also libraries and new immigrant services, OPWG will strive to create activity hubs. iii. To accommodate adults of all ages into the OPWG, the creation and expansion of programs such as the White Hat Volunteers at the Calgary International Airport. 	<p>Healthy City</p> <ul style="list-style-type: none"> i. OPWG is a costly undertaking without definitive proof of increased community sport participation. ii. Facilities for the OPWG are not distributed through the four quadrants to provide access for all residents.

ECONOMIC IMPACTS

ECONOMIC IMPACTS		NEGATIVE IMPACTS
OBJECTIVE		
PURPOSEFUL DIVERSIFICATION		
	<p>Economics</p> <p>i. Economic returns on investment when bidding and hosting a Games are seen when growth in specific areas is targeted. By focusing on attracting groupings of companies to Calgary to work with or in correlation to the OPWG, creates the largest amount of long-term job creation, in keeping with the economic strategy outlined by Calgary Economic Development. For further information on economic impacts of a prospective Games, see Section 3.</p> <p>ii. Salt Lake City used the Winter Games to attract and retain sport equipment companies. They offered million-dollar tax breaks to companies that created more than 50 part-time jobs. This type of concentrated business is known as cluster development. Promoting cluster development increases international acumen in those specific areas, which can increase reputation and make it easier to bid on and host events that play to the city's strengths in the future.</p> <p>iii. There is an inter-connectedness and ripple effect to the benefits of spending, which may provide positive impacts to unforeseen businesses.</p> <p>iv. Additional and accelerated spending will occur by private organizations so they are well-prepared to host the Games. As an example, renovations and updates to hotels in the Calgary area may have been planned for the future but then accelerated to prepare for 2026.</p> <p>v. Hosting an event like the OPWG can help reshape Calgary's reputation into more than just an oil and gas city.</p>	<p>Economics</p> <p>i. Disruption to local businesses in proximity to Olympic venues due to traffic and lane closures.</p> <p>ii. Businesses located in outlying or suburban neighborhoods may see a decrease in activity due to centralized nature of the Games.</p> <p>iii. Focusing on cluster development can narrow the type of businesses being attracted to the city, leading to an unbalanced and less diversified local economy.</p> <p>iv. The IOC has a compromised international reputation. By associating with the IOC, some of this negative attention may be transferred onto Calgary.</p> <p>v. Negative aspects of the province's reputation, such as the oil sands, may be emphasized by special interest groups.</p> <p>vi. How much OPWG-related spending will stimulate the economy is difficult to measure.</p> <p>vii. It is difficult to estimate the spending that will occur by private organizations and the public benefits that may be realized</p> <p>viii. Participation of much of the Calgary work force as volunteers may affect productivity leading up to and during the Games.</p>

ECONOMIC IMPACTS	
OBJECTIVE	NEGATIVE IMPACTS
<p>FOCUS ON EMPLOYMENT</p> <p>Job Creation</p> <p>i. The projected creation of full-time equivalent jobs in Alberta is covered in Section 3.</p>	<p>Job Creation</p> <p>i. Unlikely for security to generate full-time employment after the end of the Games, however it will create temporary employment during the Games.</p> <p>ii. Diversion of qualified and talented individuals away from other sectors of the economy in favour of Olympic-related ones.</p>
<p>INNOVATION AND PARTNERSHIPS</p> <p>City Impacts</p> <p>i. Calgary envisions itself as a “sports city” and hosting of the OPWG would reinforce and grow this image, just as it did after the 1988 Games when national sports organizations relocated to Calgary.</p> <p>ii. With the new facilities, Calgary will be better able to host other world- class sporting events and support tourism growth.</p> <p>iii. Hosting the OPWG will give Calgary businesses the opportunity to showcase their goods and services to the global market, while also fostering innovation. For example, the race timing chips provided by Sunco Energy allowed their IT department the opportunity to develop and manage them.</p> <p>iv. The Olympic bid itself can be a marketing opportunity, promoting creative and entrepreneurial activities.</p> <p>v. Business Revitalization Zones (BRZs) see the OPWG as an opportunity to promote their individual areas.</p>	<p>City Impacts</p> <p>i. The largest negative impact of the OPWG is that the funds allocated to the Games will no longer be available for other pursuits. It is difficult to define specifically what these pursuits might be, however the significant positive impacts of the Games would offset social programs adversely affected, particularly to vulnerable populations.</p> <p>ii. Corporate support for social programs may be diverted to providing in-kind support for the Games operations.</p> <p>iii. Tourism benefits may be short lived if a comprehensive plan to promote both the city and province is not executed in conjunction with the Olympics.</p>

ECONOMIC IMPACTS	
OBJECTIVE	NEGATIVE IMPACTS
<p>INNOVATION AND PARTNERSHIPS</p> <p>Indigenous Peoples Partnerships</p> <p>i. There is a unique opportunity for meaningful partnerships with Indigenous Peoples on economic, social and cultural pursuits through avenues such as the Aboriginal Sports Circles.</p> <p>ii. In Vancouver 2010, \$9 million in economic activity was generated through local First Nations partnerships.</p> <p>iii. See sections 4.3.1 and 4.3.2 for discussion of potential Indigenous Peoples partnerships related to accommodations.</p>	<p>Indigenous Peoples Partnerships</p> <p>i. OPWG may not be able to effectively partner with all Indigenous Peoples and some may not receive the benefits and legacies.</p>

ENVIRONMENTAL IMPACTS

ENVIRONMENTAL IMPACTS	
OBJECTIVE	POSITIVE IMPACTS
<p>GREENHOUSE GAS EMISSION REDUCTION</p> <p>Emissions</p> <ul style="list-style-type: none"> i. Most security measures, including radar-based Perimeter Intrusion Detection Systems (PIDS), aerostat and cameras (CCTV), do not require significant amounts of energy to operate and should therefore not impact the energy footprint. ii. [REDACTED] iii. The ISO 20121 will be achieved for Event Sustainability Management. iv. New construction will achieve a LEED® Gold certification. v. Cycling and walking to events will be encouraged; Calgary has the infrastructure in place to accommodate these modes of transportation. vi. The Sustainability and Legacy Advisory Group will be set up to determine how to minimize and measure the OPWG greenhouse gas footprint. vii. For a full review of environmental sustainability initiatives, see Section 10. 	<p>NEGATIVE IMPACTS</p> <p>Emissions</p> <ul style="list-style-type: none"> i. The extensive required amount of international and domestic airline travel required in the candidature, bidding and hosting phases. ii. Transportation requirements to move athletes, workforce, IOC family, volunteers and spectators to and from the mountain venues. iii. The increase in energy consumption related to OPWG will lead to an increase in greenhouse gas (GHG) emissions. iv. Cycling and walking in Calgary's winter weather is limited.
<p>BROWNFIELD SPACES</p> <p>Redevelopment</p> <ul style="list-style-type: none"> i. [REDACTED] [REDACTED] [REDACTED] [REDACTED] facility would be replaced with a facility incorporating, at minimum, LEED® Gold design standards and the most modern environmental controls and protections; [REDACTED] 	<p>Redevelopment</p> <ul style="list-style-type: none"> i. Developing media housing units in green/brownfield spaces along new and existing LRT lines will eliminate the green space.

ENVIRONMENTAL IMPACTS	
OBJECTIVE	NEGATIVE IMPACTS
<p>BROWNFIELD SPACES</p> <p>ii. Media housing units will be built along new and existing LRT lines and public transit routes on brownfield sites. These sites are currently green spaces. These units will also later be converted to affordable housing.</p>	
<p>WASTE MANAGEMENT</p> <p>Waste Management</p> <p>i. Calgary already has a comprehensive recycling and waste diversion program in place, and a strong foundation for waste minimization. This will improve further with the incoming green bins for composting.</p>	<p>Waste Management</p> <p>i. Increase in waste due to the increase in the city's temporary population.</p> <p>ii. The raw materials from any demolishing or rehabilitation post-Games would be considered for their environmental impact.</p> <p>iii. Increase stresses on the city and village locations as well as alpine event locations for water supply and sewage treatment systems.</p>
<p>BIODIVERSITY AND HABITAT</p> <p>Impacts</p> <p>i. Minimal impact to wildlife at mountain events as most security measures in place will be barrier-free.</p> <p>ii. The boundaries of development at Nakiska, Lake Louise and the Canmore Nordic Centre will not be expanded.</p> <p>iii. Additional parking spaces will not be required at Lake Louise.</p> <p>iv. Terrain grading at WinSport, Nakiska and Lake Louise will be rehabilitated after the OPWG and returned to its original state.</p> <p>v. Sections 4.1 and 4.1.1 provide further information on these issues.</p>	<p>Impacts</p> <p>i. There will be an increase in visitors to the National Parks in the surrounding areas that may negatively impact the environment and wildlife.</p> <p>ii. The construction of the Mountain Athletes' Village could potentially occur within a designated animal corridor on previously undeveloped land.</p> <p>iii. Grading of the terrain at WinSport and Nakiska will disturb local wildlife and habitat.</p> <p>iv. The new biathlon track at Canmore Nordic Centre will occur without the OPWG; there will be some wildlife interference.</p> <p>v. Nakiska will see the building of new roads and trenching to accommodate upgraded utilities lines, which will impact the natural habitat and wildlife.</p> <p>vi. Increase in light pollution levels.</p>



9.3 LEGACY

The 1988 Olympic Winter Games brought about lasting benefits for the Calgary sports community. A prospective 2026 OPWG would also be expected to leave a considerable legacy not just for the sports community but also for the wider communities of Calgary and the Bow Valley Corridor, including Indigenous Peoples.

CBEC's estimates incorporate approximately \$449 million into legacy areas, as elaborated below.

Culture

The Cultural Olympiad would support and build capacity in the local arts sector, celebrating and promoting local and national culture for the four years leading up to and during the Games. This would build long-lasting capacity within local arts and culture organizations by providing dedicated opportunities over several years leading up to the Games.

Security

As with Vancouver 2010, equipment, technology, training and skills purchased or developed for the Games would remain in the Calgary area for use by the Calgary Police Service, Calgary Emergency Management Agency and others. [Section 7](#) outlines the capital investments required to host the Games from a security perspective, all of which could be provided to local agencies post-Games to support their ongoing operations.

Housing

Our MFP concept outlined in [Section 4](#) proposes several forms of legacy housing that will impact many segments of Calgary and the mountain communities, including:

- Development of 800 additional post-secondary accommodations.
- Providing attainable and affordable housing to help address existing shortages in Calgary and the Bow Valley Corridor.
- Adding 400 subsidized units for seniors that would become available after the Games.
- Providing much-needed perpetually affordable and employee housing units through the Mountain Athletes' Village.

Facility and sport legacies

Facility and sport legacies were a critical component of the legacy of the 1988 Games through the Calgary Olympic Development Association (now WinSport), as well as during the 2010 Games through the Games Operating Trust. Facility legacy endowments would ensure the continued operation of Games facilities, thereby enabling community use post-Games. These endowments could be targeted to provide both operating subsidies and funding for ongoing capital maintenance needs, helping ensure any public facilities built or renovated for the Games would remain aligned with community and stakeholder needs. These facilities would provide access to sport for all abilities and help foster an active community, a priority identified by the City of Calgary as part of its Triple Bottom Line policy.

In addition, we propose establishing an endowment to support programs that enable the use of the facilities to develop all athletes, from elite to non-elite, and create more opportunities for traditionally marginalized groups, including persons with disabilities, low-income families and Indigenous Peoples.

Indigenous Peoples

Legacy benefits are anticipated to meet specific needs for local Indigenous Peoples and ensure their meaningful and valued participation in the planning and execution of the OPWG. We would encourage a prospective OCOG and government to consult extensively and partner with Indigenous communities to understand their preferences for legacies and determine the most impactful activities.

CBEC's estimates of appropriate endowment legacy funds, as well as other estimates that would create important legacies for Calgary and region, are presented in Figure 9.2.

Figure 9.2 Legacy areas and associated budget

	Cost (C\$ M 2017)
 <ul style="list-style-type: none"> • Cultural Olympiad: Opportunity to showcase local arts and culture performers, helping build capacity within the local arts sector 	~\$33 ¹
 <ul style="list-style-type: none"> • Student accommodation: Non-village city accommodation includes 800 room residence (location TBD) to support Calgary’s post-secondary institutions 	~\$23 (total cost: C\$93M)
 <ul style="list-style-type: none"> • Security: Equipment and technology purchased for the Games security budget that can be reused by Calgary Police Service, CEMA and others 	~\$45
 <ul style="list-style-type: none"> • Indigenous participation: Budget includes ~C\$11M budget in operations for Indigenous Peoples participation; in 2010 funding was used to provide seed funding for legacy opportunities and for an Aboriginal pavilion 	~\$51 ¹ (incl. required gov't spend)
 <ul style="list-style-type: none"> • Attainable housing: City village includes ~130 units for attainable housing • Affordable housing: Non-village city accommodation based on providing 800 affordable housing units and 400 subsidized senior housing rooms • Mountain affordable housing and employee housing: Mountain village includes ~150 perpetually affordable units and 360 employee housing units 	~\$45 ² ~\$41 ² (total cost: C\$319M) ~\$41 ²
 <ul style="list-style-type: none"> • Facility legacy enhancement: Legacy enhancements are not required by Games and will contribute to improved facilities usable by the community post-Games • Facility legacy endowment: Legacy funding established to ensure ongoing operations at select Games facilities (e.g. WinSport, Oval, Fieldhouse) • Sports programming endowment: Endowment to support amateur and high-performance athletes and ensure public can access facilities post-Games 	~\$35 ~\$60 ~\$75
Total ~C\$449M	

1. Includes pro-rated portion of salaries from appropriate function
 2. Full amount of subvention provided by Games

Source
CBEC



SECTION 10. ENVIRONMENTAL STEWARDSHIP



10.0 OVERVIEW

This review of environmental stewardship demonstrates that a Calgary bid can satisfy the requirements for environmental sustainability outlined by the Canadian Olympic Committee (COC) and International Olympic Committee (IOC).

One of the objectives of the IOC's Olympic Agenda 2020 (see *Appendix 4B*) is to make the Games more sustainable and reduce negative impacts in financial, social and environmental terms, with particular emphasis on sustainability and legacy. The Calgary Bid Exploration Committee (CBEC) has developed a comprehensive set of recommendations outlining how the environmental sustainability requirements of both Olympic Agenda 2020 and the newly-adopted IOC Sustainability Strategy (see *Appendix 10A: International Olympic Committee Sustainability Strategy Executive Summary*) would be achieved for the 2026 Olympic and Paralympic Winter Games (OPWG).

Initiatives are already in place at the municipal and provincial levels to progress these recommendations in areas of climate change and carbon management, waste management, transportation and overall sustainability. Specifically:

CBEC's Master Facilities Plan to reuse all of the 1988 legacy venues (if Ski Jumping is hosted at

- WinSport) and/or other Canadian Olympic venues is an environmentally responsible approach that is in alignment with Olympic Agenda 2020.

The use of existing facilities in environmentally protected areas, including the Canmore Nordic Centre as well

- as the Nakiska and Lake Louise ski resorts, supports mountain events with minimal new environmental impacts.

■ The City of Calgary already has initiatives to lead the community towards zero waste through innovative recycling, composting and diversion programs with a target of 70 per cent waste diversion by 2025.

■ The current City of Calgary development approval process requires all new public buildings be built to a Leadership in Energy and Environmental Design (LEED®) Gold standard.

■ In 2011, the City of Calgary endorsed the recommendation of converting its transit bus fleet from diesel to cleaner-burning compressed natural gas (CNG). A CNG storage and fueling facility is currently under construction and the City will begin acquiring CNG transit buses in 2017. This facility will have an all-CNG bus fleet in place prior to the 2026 OPWG.

■ The Alberta government has initiated a tax on carbon emissions to provide a financial incentive to lower carbon emissions.

■ The City of Calgary uses a “triple bottom line” philosophy to guide its planning processes by considering economic, social, and environmental sustainability factors.



10.1 BACKGROUND

The environment has been an integral component of the Olympic Movement since the early 1990s. In 1994, the IOC adopted Environment as the third pillar of the Olympic Movement along with Sport and Culture. As outlined in the Olympic Charter (see *Appendix 9A*):

“
The IOC’s role is...to encourage and support a responsible concern for
environmental issues, to promote sustainable development in sport and
to require that the Olympic Games are held accordingly.”

- Olympic Charter

In the intervening years, the concept of sustainability in the Olympic sphere has evolved beyond environmental stewardship to encompass social inclusion and economic sustainability. The Vancouver 2010 Winter Games and the London 2012 Summer Games both built their organization and delivery plans on a foundation of economic, social, and environmental sustainability. The City of Calgary uses this “triple bottom line” philosophy to guide its planning and decision-making. As detailed in [Section 9](#), CBEC completed an analysis using the triple bottom line considerations plus a fourth category of Sport to assess the social, cultural, economic and environmental sustainability impacts that could be expected if Calgary was to host the Games.

In 2014, the IOC developed Olympic Agenda 2020, a set of 40 recommendations guiding the future direction for the Olympic Movement. One of the objectives is to make the Games more sustainable and reduce negative impacts in financial, operational and environmental terms with particular attention paid to sustainability and legacy. In this regard, CBEC’s Master Facilities Plan to reuse of all of the 1988 legacy facilities (if Ski Jumping is hosted at WinSport) and/or other established Canadian Olympic venues is an environmentally responsible approach in alignment with Agenda 2020. See *Appendix 4B: Olympic Agenda 2020* for complete text of the recommendations.

The IOC approved a Sustainability Strategy in 2016 (see *Appendix 10A*) which is captured in the Host City Contract Operational Requirements (see *Appendix 4E*), which are key components of the candidature and selection process for cities considering a bid to host the Games. The strategy highlights five focus areas for sustainability, including:

- infrastructure and natural sites
- sourcing and resource management

- ▀ mobility
- ▀ workforce
- ▀ climate

CBEC has developed a comprehensive set of recommendations to outline how adopted IOC Sustainability Strategy would be achieved for the 2026 OPWG. The CBEC recommendations fall into four categories:

- ▀ climate change and carbon management
- ▀ waste management
- ▀ transportation
- ▀ sustainability program

A summary of these recommendations is provided below. For a more detailed analysis of our environmental stewardship research and recommendations, see *Appendix 10B: Full Environmental Report*.

10.2

CLIMATE CHANGE AND CARBON MANAGEMENT

The 2026 OPWG must have a comprehensive plan to manage climate-related impacts and showcase innovative solutions and best practices relative to carbon management. This is especially true for Calgary and Alberta given the region's economic dependence on energy production, particularly oil and gas and the oil sands of northern Alberta. The 2026 OPWG could put a spotlight on the greenhouse gas emissions profile for the province along with progressive efforts by industry and governments to reduce emissions.

The Alberta government has already initiated a tax on carbon emissions designed to provide a financial incentive for families, businesses and communities to lower their carbon emissions. A price on carbon drives innovation and changes behaviour by encouraging individuals and businesses to become more energy efficient and shift away from higher emission fuels.

The Calgary Downtown District Energy Centre currently provides efficient district heating for buildings in and around the East Village, including the City of Calgary Municipal Building. New and refurbished buildings in the area as part of the 2026 OPWG plans could be serviced by this and similar systems, cutting energy costs and reducing greenhouse gas emissions.



CBEC RECOMMENDATION ON CLIMATE CHANGE AND CARBON MANAGEMENT:

A Calgary 2026 OPWG must include a comprehensive carbon management strategy outlining a “know, reduce, offset, engage” approach to profiling innovative solutions to the global climate change challenge. The strategy must be established early in the organizing period and be integrated into all functions and phases of the Games, including: planning, construction, organizing, delivering and decommissioning.

10.3 WASTE MANAGEMENT

Minimizing waste in planning and delivering the Games has been a primary focus of environmental programs within Organizing Committees for decades. It is important to reduce waste over the entire seven-year period, across all aspects and partners of an Organizing Committee. A “zero waste” approach – refuse, reduce, reuse, repurpose, recycle – should provide the foundation for decision-making regarding what products are needed and their use at the end of the Games.

Residents of Calgary, Alberta and Canada, as well as the IOC, will endorse an approach that minimizes waste and emphasizes resource efficiency through wise and efficient use of materials, energy, food and water.

The City of Calgary already has initiatives in place to lead the community towards zero waste through innovative recycling, composting and diversion programs with a target of 70 per cent waste diversion by 2025 averaged across all four sectors – single and multi-family residential, business and organizations, construction and demolition. In addition, in 2018 all paper and cardboard will be banned from landfills, as will food and yard waste in 2019.

CBEC RECOMMENDATION ON WASTE MANAGEMENT:

In pursuit of a zero waste vision for the Games, a Calgary 2026 OPWG must incorporate a waste management strategy that sets a target of diverting 90 per cent of waste from landfills. The strategy should be deployed early in the organizing period, guide product and material procurement decisions across all functions and be a key component of sponsor negotiations.



10.4 TRANSPORTATION

Transportation is one of the most complex aspects of planning and delivering a successful Olympic Games. Our concepts for transportation are described more fully in [Section 4.3.3](#). Moving huge volumes of people and goods through the organizing phase, the Games themselves and the post-Games period have significant environmental impacts related to greenhouse gases and air quality. A smart, efficient, low-carbon transportation plan is imperative given the important connection to reducing greenhouse gas emissions embedded in the carbon management strategy.

In 2011, the City of Calgary endorsed the recommendation of converting its transit bus fleet from diesel to clean burning compressed natural gas (CNG). With capacity for 424 buses and a fueling facility, the Stoney CNG Bus Storage and Transit Facility is currently under construction. The City will begin to acquire new CNG transit buses in 2017. This facility will have an all-CNG bus fleet in place prior to the 2026 OPWG.

In addition, the addition of the Green line to the existing LRT system will facilitate moving large numbers of people to and from the games venues in an efficient, low-carbon manner.



CBEC RECOMMENDATION ON TRANSPORTATION:

A Calgary 2026 OPWG must integrate principles for smart, low-carbon transportation solutions that align with the carbon management strategy and guide the development of Games mobility plans for people and goods.



10.5 SUSTAINABILITY PROGRAM

Guided by the requirements of the IOC's Olympic Agenda 2020, Sustainability Strategy and Host City Contract Operational Requirements, CBEC has formulated eleven recommendations that would form the core of a sustainability platform for the Games if the decision is made to pursue a bid.

To meet IOC requirements, Calgary 2026 OPWG must develop the following sustainability deliverables:

■ **Strategy:**

A strategy that provides sustainability objectives, strategies and outcomes related to the IOC's five focus areas as well as additional goals, objectives, and strategies for sustainability issues relevant to Calgary that should be integrated with the legacy plan for the Games.

■ **Implementation plans:**

Implementation plans for each priority topic in the sustainability strategy to translate the strategy into action. The implementation plans must be reviewed with the IOC before publication.

■ **Management system:**

A management system, linked to the corporate strategy, to define desired sustainability objectives, performance measures and responsibilities, and reporting practices. The management system must be certified under ISO 20121 – Event Sustainability Management System.

■ Governance:

A structure that ensures accountability for sustainability performance is clearly defined and progress is monitored at the governing board level. This reflects the significance and cross-organizational nature of anticipated sustainability commitments.

■ Sustainability reporting:

Prepare annual sustainability reports using recognized international reporting standards (Global Reporting Initiative or equivalent). The annual sustainability reports should begin a minimum of three years out from the Games and include a post-Games report issued within six months of the Games' conclusion.

If Calgary decides to proceed with the bid to host the 2026 Games, CBEC recommends that the Calgary 2026 OPWG establish the following:

■ Stakeholder and public engagement strategy:

Develop a stakeholder and public engagement strategy early in the Games organizing phase outlining engagement on the sustainability strategy with stakeholder groups and the public.

■ Bid phase sustainability and legacy advisory committee:

A sustainability and legacy advisory committee should be formed in the bid phase to provide expert input into the planning process.

■ Green building:

Commitment to pursue a minimum of LEED® Gold building rating for all new construction. This rating is already required for all new City of Calgary public buildings. [REDACTED]

[REDACTED]

[REDACTED]

/// Ecosystem and habitat:

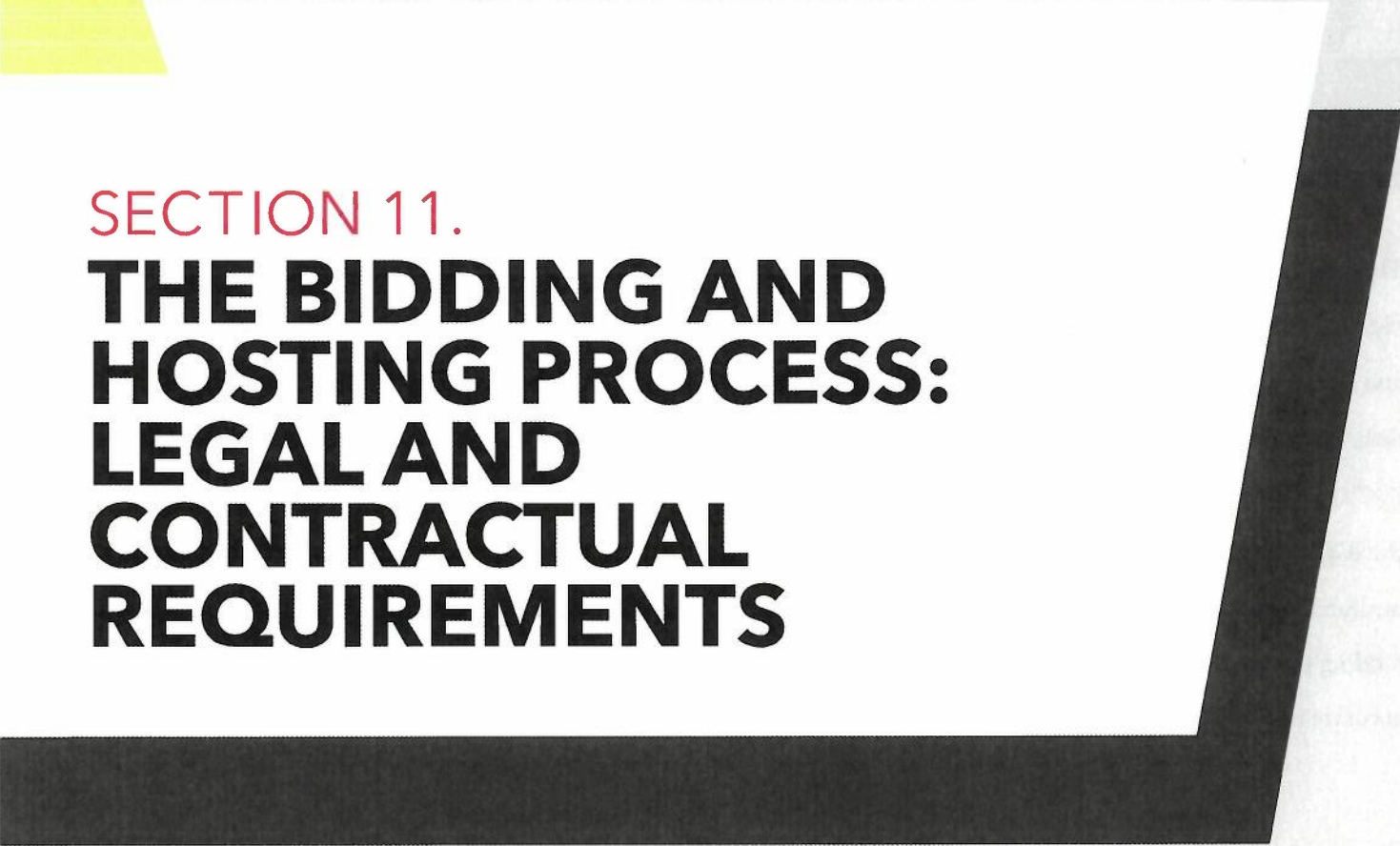

In environmentally and culturally protected areas, including the Canmore Nordic Centre as well as the Nakiska and Lake Louise ski resorts, the use of existing facilities supports events with minimal new environmental impacts. If Calgary and region were to pursue a bid, and if facilities in such protected areas are to be used, consultation with stakeholders and government would be required to develop venue plans that minimize potential new impacts.

/// Environmental impact assessments:

Environmental impact assessments should be undertaken for any new major venue to define potential impacts, identify avoidance and mitigation strategies and consider compensation efforts to lead to a net positive impact on the protected area. If Treaty 7 First Nations lands are to be used, environmental impact assessments must be conducted while engaging Indigenous Peoples early in the development process consultations.

/// Smart procurement:

Implementation of a smart procurement approach to help meet environmental sustainability objectives as well as potential social objectives. The smart procurement criteria should be defined and initiated early in the organizing phase to guide venue and construction decisions, functional planning and sponsor negotiations.



SECTION 11.
**THE BIDDING AND
HOSTING PROCESS:
LEGAL AND
CONTRACTUAL
REQUIREMENTS**



11.0 OVERVIEW

The International Olympic Committee (IOC) provides a meaningful amount of information regarding the Games bidding and hosting processes and operational requirements – and information relevant to a prospective 2026 Olympic and Paralympic Winter Games (OPWG) in Calgary is summarized here. CBEC has carefully reviewed all available documentation, and has sought further insights from several knowledgeable advisors to understand the impact of the IOC’s expectations on a Calgary bid and hosting of the Games should we proceed. CBEC has fully contemplated all the IOC materials, in particular its formulation of the budgeting expectations for the 2026 OPWG OPWG – these are outlined in greater detail in [Section 6](#). However, it is important to note that candidature guidelines for the 2026 OPWG bidding process are not yet available. Only upon review of these materials will CBEC be in a position to provide more accurate information, applicable timeframes and budget assumptions.

11.1

IOC REQUIREMENTS¹

SECTION 11.1.1: IOC OLYMPIC CANDIDATURE PROCESS

The Olympic candidature process has been reshaped by Olympic Agenda 2020, the International Olympic Committee (IOC)'s strategic roadmap for the future of the Olympic Movement, approved by the session of the IOC in December 2014.

The fundamental principles of Agenda 2020 reform include a commitment from the IOC to make the bidding process less costly and complex, to increase transparency from the IOC, and to be more flexible with respect to what works best for the bidding cities. Cities are encouraged to better shape their value propositions and to discuss and present proposals and potential solutions that will deliver excellent Games – all without compromising the field of play for the athletes, while also meeting the needs of the host city and region to ensure a positive, long-term, sustainable legacy.

It should be noted that only one candidature phase – for 2024 - has been issued since the Agenda 2020 reforms were first announced. Continued refinements to the candidature procedure and documentation for 2026 are expected as Agenda 2020 continues to be evaluated and implemented.

The Olympic candidature process governed by the Olympic Charter (Rule 33 and its by-law) and the specific requirements of each Games are then prescribed by the IOC's candidature guidelines documentation. To date, the IOC prescribed process includes the following stages which are summarized below, and which are outlined in great detail in the IOC documentation:

¹ <https://www.olympic.org/all-about-the-candidature-process> (see also *Appendix 11A: IOC Olympic Candidature Process*) (accessed May 3, 2017)

Pre-invitation dialogue phase (currently in progress):

Early dialogue between the IOC and any city interested in potentially bidding for the 2026 Olympic and Paralympic Winter Games.

Invitation phase (mid 2017 - early 2018):

Not a formal commitment to bid, this phase will include the Observer Program – Olympic Winter Games PyeongChang 2018 from February 9-25, 2018. This phase is concluded when a letter (signed by the city and the National Olympic Committee) expressing a city's interest in bidding for the Games is submitted.

The candidature process:

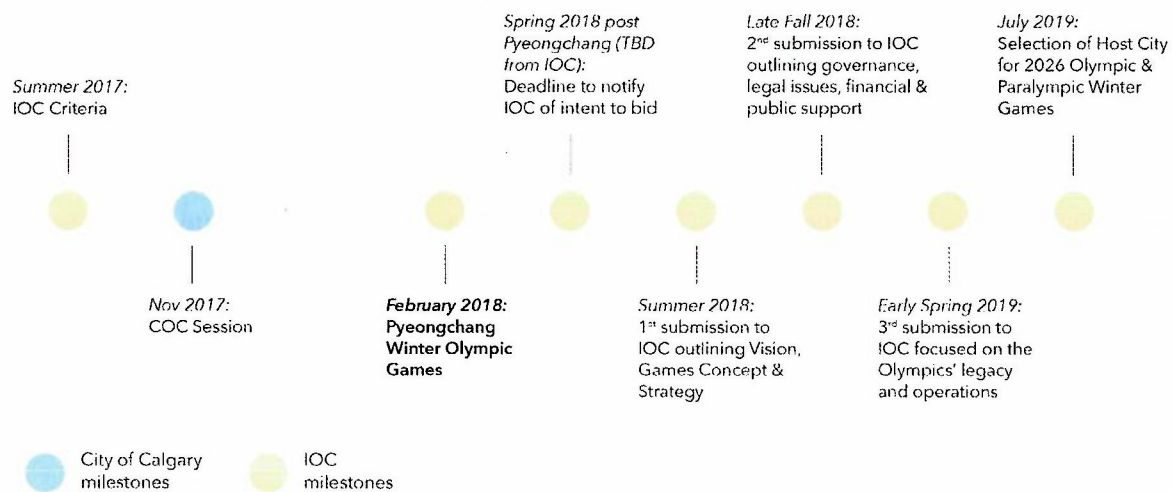
A formal commitment to bid with three distinct stages:

- Stage 1: vision, Games concept and strategy
- Stage 2: governance, legal and venue funding
- Stage 3: Games delivery, experience and venue legacy

2026 host city election:

In July 2019, the IOC will host an IOC session meeting for the purpose of selecting the host city for the 2026 OPWG.

Figure 11.1 IOC Olympic candidature process



SECTION 11.1.2: PRE-INVITATION DIALOGUE PHASE

In the case of the 2026 OPWG candidature process, there is the addition of a “pre- invitation phase”, not included in previous candidature processes, which allows for IOC Games development staff to liaise with CBEC on a regular basis to ensure we are as fully informed regarding the candidature process as possible.

SECTION 11.1.3: INVITATION PHASE

The invitation phase is a direct result of Olympic Agenda 2020. This new period focuses on dialogue between the IOC and future candidate cities to establish a strong foundation for the next few phases of bidding. The IOC provides a range of services to National Olympic Committees (the groups responsible for organizing a country’s participation in the Games – in Canada’s case, the Canadian Olympic Committee) and cities interested in bidding. Potential candidate cities are invited to attend a workshop in Lausanne, Switzerland to discuss their initial ideas with the IOC and receive various levels of assistance and feedback ahead of officially submitting a candidature. This invitation phase also includes sharing of best practices, provision of materials, and a focus on understanding the Games to put together a solid project that best meets the city’s long-term development needs.

Recently CBEC received an invitation to participate in two IOC-led workshops on the 2026 OPWG candidacy to be held by videoconference. The first, on June 2, 2017, is open to all cities identified as interested in a 2026 OPWG bid: Sion, Switzerland; Innsbruck, Austria; Stockholm, Sweden; and Calgary. The second, on June 6, 2017, is for CBEC only to ask questions specific to the Calgary market.

Encouragement of legacy and sustainability begins right from the outset of the invitation phase to ensure the Games act as a catalyst for positive development of tangible and intangible legacies for the future host city and region. At the end of the invitation phase, NOCs and cities are invited to commit to the candidature process, and a city becomes an official candidate city.

CBEC has been informally advised by the IOC that letters of commitment to become a candidate city will not be due until sometime following the 2018 PyeongChang Olympic Winter Games.

Accordingly, elements that were typically included in Stage 1 of the candidature process, such as the Observer Program, will now occur while a candidate is still in the invitation phase. **All details regarding who is responsible for paying for certain phases of the invitation phase or other parts of the bid process, deadlines, guarantees and payments associated with each of the three application phases will only be known accurately in Summer 2017 when the IOC has indicated it will release the 2026 candidature process along with the 2026 host city contract and operational requirements documentation.** For further reference to the 2024 candidature process and host city contract, please see *Appendix 11B: IOC Candidature Process Olympic Games 2024*.

Specific to the 2026 candidature process, during the invitation phase cities will also take part in an Olympic Games Observer Program which is an essential element of the IOC's knowledge transfer and forms part of the potential candidate cities' overall learning strategies. The Observer Program is a specifically tailored experience delivered to the candidate cities as well as future organizing committees which allow behind-the-scenes Games access and learning. For 2026 candidate cities, the Observer Program will occur during the PyeongChang OPWG (February 9-25, 2018 for the Winter Olympics, followed by the Paralympics March 9-18, 2018). This would occur during the invitation phase due to the IOC's delayed application process for the 2026 OPWG, as opposed to typical IOC candidature processes when this has occurred in Stage 1.

It should also be noted that in the past, the IOC has required a financial non-refundable deposit to be made with the initial letter of intention to bid and then at each of the three stages of candidacy that follow. The IOC calls this a "candidature service fee" and indicates that the fee "goes towards offsetting the various services provided by the IOC, including a series of workshops, the Observer Program, attendance at the official Games debrief and protection of the wordmark "[City] 2024" outside of each candidate city's respective country" (*Appendix 11B: IOC Candidature Process Olympic Games 2024, section 10.1 "Candidature Service Fee", p. 46*). Greater detail regarding the services provided by the IOC during a candidature process are outlined in detail in the candidature process (2024) (*Appendix 11B: IOC Candidature Process Olympic Games 2024, pp. 18-24*)

For the 2024 candidature process (the only one undertaken so far since Agenda 2020 reforms), the initial financial installment previously due with a letter of intent to bid was removed entirely and the price of the deposit at each successive stage was significantly reduced.

The IOC's total candidature service fee under the 2024 process is USD\$250,000. Prospective candidate cities will only come to understand the total candidature service fee and installment dates when the candidature process for 2026 is released by the IOC in summer 2017.

Similarly, certain legally binding guarantees are required at each stage of candidacy as they are currently set out in the 2024 candidature materials (materials not yet available for the 2026 process). Prospective candidate cities should likely anticipate that the guarantees required at each stage of candidacy will not materially change from the 2024 process. The exact language required for the guarantees is provided in the IOC's "2024 Candidature Questionnaire" documentation (see Appendix 11C: IOC Candidature Questionnaire Olympic Games 2024) and is set out in a summary fashion at the end of each of the three stages in this section.

SECTION 11.1.4: OVERVIEW OF THE CANDIDATURE PROCESS

Following the invitation phase, cities which have made the decision to bid for an Olympic Games enter the official Olympic candidature process. This spans a period of approximately one-and-a-half years culminating in the host city election by the IOC session.

Olympic Agenda 2020 has highlighted the need for a shift in the candidature process to accommodate different solutions to meet Games needs within different municipal contexts. To enable this, the IOC has emphasized transparency, sustainability and legacy. In addition, the IOC has carried out a thorough review of Games' needs to reinforce alignment between a city's long-term development plans and the Games, enabling cities to pursue the promotion of sustainable Games solutions and feasible long-term legacies which meet their needs.

By framing the candidature process as an invitation, the IOC and NOCs and their respective cities engage in a dialogue. This ongoing dialogue and progressive information exchange (allowing course correction for the cities) will be underpinned by periodic opportunities for collaboration, or simply put, touch points between the cities and the IOC. During all three stages the IOC provides services to every city including specific workshops, learning opportunities and transfer of knowledge.

Three official submissions by candidate cities in line with the three stages of the process form part of a single integrated progression which allows work to mature at an appropriate rate. Filings to the IOC are mapped to a logical series of milestones with staged analysis by the IOC. Each stage addresses different elements of the cities' proposals in the specific context of each country, region and city. During stage 1 and 2 the IOC evaluation commission working group will analyze the files submitted and provide an update to the IOC Executive Board. Following stage 3 the IOC evaluation commission analyzes the submission and publishes its final report following a site visit to each city. After each submission, the IOC Executive Board will confirm the transition of the cities to the next stage.

In summary, through the adoption of Olympic Agenda 2020, the IOC has begun to articulate a new openness to Games value propositions that will deliver greater, more economic and practical Games for cities while also meeting a city and region's vision, legacy and sustainability goals. CBEC or a prospective Calgary BidCo will only come to fully understand the IOC's intentions in implementing Agenda 2020 recommendations when the candidature guidelines for the 2026 OPWG is released.

STAGE 1: VISION, GAMES CONCEPT AND STRATEGY

This is the strategic analysis phase, during which candidate cities put together their Games vision, concept and legacy plans. During this stage, cities build national support from stakeholders and the general public, while developing firm foundations and solid concepts that meet the long-term development and legacy plans for the city and region, with a strong emphasis on sustainability.

Shortly following the announcement by the IOC of the official candidate cities, the IOC will host a video conference for all cities. The purpose of this video conference is to provide the cities with important procedural information allowing for a clear understanding by all parties about the Olympic candidature process while also emphasising the importance of a fair and equal competition. Also during this phase, the IOC will host an individual workshop for each candidate city to provide information on vision, Games concept and strategy to aid the cities in building a solid Games concept aligned with their city and region's long-term development plans.

This phase culminates in the submission by the candidate cities of the candidature file part 1 along with the first candidature service fee (a non-refundable deposit), which is then analyzed by the IOC evaluation commission's

working group on vision, Games concept & strategy by providing an update to the IOC Executive Board. The Executive Board then confirms the continuation of each candidate city to the next stage or addresses specific challenges a city may face and needs to re-evaluate. Various representatives from the different levels of government and supporting committees must guarantee the Stage 1 submission (*see Appendix 11C: IOC Candidature Questionnaire Olympic Games 2024, pp.37-38*) as follows:

1) Federal Government:

- a. Names of duly authorized representatives.
- b. Guarantee to respect the Olympic Charter and specifically the prohibition against discrimination of any kind.
- c. Guarantee that immigration laws and procedures will allow the Olympic identity and accreditation card together with a passport or other official travel document to serve as entry into Canada.
- d. Guarantee that the city and OCOG will fulfill all obligations under the host city contract

2) Calgary and any other venue:

- a. Names of duly authorized representatives.
- b. Guarantee to respect the Olympic Charter.
- c. Guarantee that it will take all measures to fulfill all obligations under the host city contract.

3) Federal, Provincial and Municipal:

- a. Support for the candidature.
- b. The Games will align with existing development plans and strategies.
- c. All levels of government will cooperate.

4) Additional Guarantees:

- a. Environmental feasibility.
- b. Canadian Paralympic Committee support.
- c. City plus Calgary BidCo commitment to people with disabilities, commitment to Olympic family of sponsors.
- d. Federal Tourist Board commitments on accommodation ratings and hotel inventory

STAGE 2 - GOVERNANCE, LEGAL AND VENUE FUNDING

This phase ensures that cities have the necessary legal and financial mechanisms in place to host the Olympic Games. The IOC-appointed evaluation commission working group will focus on reviewing proposed governance structures, legal elements and political, private and public support for the bid to determine the challenges and opportunities related to each bid city.

As in Stage 1, the IOC will host a workshop for the candidate cities regarding governance, legal and venue funding. The IOC will also provide an additional workshop to relay individual feedback to each candidate city in relation to their Stage 1 submission and plans.

Cities will also be invited to attend the official debrief of the Olympic Games which is a forum of exchange between the IOC, the past Games host, current OCOGs and candidate cities, typically occurring several months after the staging of the Games. The debrief provides another excellent opportunity to learn best practices from the previous Games host and reflects the IOC's initiative to support and assist future Games organizers and candidate cities through knowledge transfer, forming an integral part of the wider post-Games analysis and information collection.

Importantly, during Stage 2, **certain guarantees are required** to be submitted by a candidate city **related to venue and infrastructure funding guarantees, and venue use agreements**. This is the heaviest number of guarantees required to be delivered by any bid city.

Stage 2 - Guarantees must be provided as follows (see also Appendix 11C: IOC Candidature Questionnaire Olympic Games 2024, pp. 58-68):

1) Host city + Canadian Olympic Committee + BidCo:

- a. Agreement to sign the *host city contract*.
- b. IP protection.
- c. Any disputes to be settled by the Court of Arbitration for Sport in Lausanne under Swiss law.
- d. No conflicting events that could affect the staging of the Games.
- e. Submit executed *joint marketing partnership agreement* including guarantees from each National Sport Federation.
- f. Submit executed *Paralympic joint marketing partnership agreement*.
- g. Secure outdoor billboard inventory.

2) Canadian Intellectual Property Office + Federal Government + venue operators:

- a. IP protection.
- b. Legislation to prevent ambush marketing in place.
- c. Guarantees from current and future owners of key Olympic venues granting use of the venue and control by the OCOG related to commercial rights.

3) Immigration/Customs:

- a. All equipment and supplies related to Games will be allowed to enter the Country without additional duties, taxes or other charges.
- b. All accredited persons will be able to enter the country to perform their Olympic related tasks.

4) Royal Canadian Mint:

- a. Confirm coin/banknote program and guarantee revenue share with IOC and OCOG.

5) Federal Government finance/taxation + Provincial finance/taxation:

- a. All services needed to stage the Games will be provided at no cost to the OCOG.

- b. Acknowledgement of host city contract and commitment to help deliver against all elements, specifically including the waiver of certain direct or indirect taxes.
- c. Commitments to fair pricing and the enforcement of same.

6) Venue financing and delivery guarantees (from relevant authority + private developers):

- a. Confirm investment needed on each competition, training or ceremony venues and provide split of capital investment guarantees between governmental sources and private sources.
- b. Same with respect to the Olympic Village(s) as well as a commitment from the city that this aligns with city development plans.
- c. Full venue agreements in the form provided by the IOC for all venues and media villages.
- d. Inclusion of city OCOG into any development plans taken on by private developers.
- e. Financing and delivery of the International Broadcast Centre and Main Press Centre.
- f. Financing and delivery of the Media Village(s).
- g. Financing and delivery of transportation infrastructure.
- h. Accessibility standards to be applied and considered for all venues.
- i. Compliance with local laws.
- j. Compliance with energy standards to ensure consistent power and telco services.
- k. Free access to radio frequencies for certain Games impacted groups (athletes, IF's, etc.).

7) Federal (or potentially other, or joint) Government(s) guarantee venue shortfall regarding Olympic Village

8) All Government safety and security guarantee

9) Medical guarantees

10) Media freedom guarantees

11) No betting/sporting manipulation of competition

12) World Anti-Doping Agency compliance

During Stage 2, cities submit their candidature file part 2 to the IOC along with the second installment of the candidature service fee (a non-refundable deposit), which will be evaluated by the evaluation commission's working group. The working group then provides an update to the IOC Executive Board who ultimately announce the cities transitioning to the third and final stage of the process.

■ STAGE 3 - GAMES DELIVERY, EXPERIENCE AND VENUE LEGACY

This stage analyzes how candidate cities will deliver the Games and ensure a sustainable legacy. The IOC evaluation commission focusses on reviewing the Games operations to ensure successful delivery. The commission also reviews legacy planning and the Games experience for all stakeholders, with a focus on the athlete experience to determine the challenges and opportunities in the abovementioned areas.

Importantly, during this final Stage 3, the financial guarantees pertaining to an OCOG shortfalls and accommodation guarantees are due. The final set of guarantees covers the following (*Appendix 11C: IOC Candidature Questionnaire Olympic Games 2024*, pp. 133-134):

Stage 3 - Guarantees:

1) Province/City/private developers:

- a. Binding comprehensive agreements with each hotel, student residence, vacation rental, etc. forming part of the overall accommodation inventory secured to meet the IOC requirements.
- b. Any new hotels have received governmental approvals needed.
- c. Guarantee of private hotel developer for “planned” hotels that financing is in place and construction will be completed on time for Games.
- d. Accommodation needs/inventory have been secured with price controls.

2) Transportation

- a. If Host City plans to have dedicated Olympic lanes then appropriate guarantees are required against delivery and operation of same.

3) Government guarantee(s) against financial shortfalls. As this is the most significant “back stop”, we have reproduced the language required for this guarantee as follows:

“Provide a financial guarantee from the competent bodies, or other forms of financial guarantees, covering any potential economic shortfall of the OCOG, including refunds to the IOC of advances in payment or other contributions made by the IOC to the OCOG, which the IOC may have to reimburse to third parties in the event of any contingency such as a full or partial cancellation of the Olympic Games.” (see *Appendix IIC: IOC Candidature Questionnaire Olympic Games 2024*, p.134)

Candidate cities submit during this phase the candidature file part 3, the final file submission which completes their full project dossier, along with the final non-refundable candidature service fee installment. The IOC evaluation commission then comes together in its entirety to analyze the documentation presented by the cities and carry out on-site analysis of each candidate city. The commission’s findings will be published in the IOC evaluation commission report which will clearly highlight the opportunities and challenges of each candidature. The report, which will be made public, will be provided to all IOC members, and will act as a crucial aid to the IOC members when electing the host city.

During this final stage, the candidate cities have the opportunity to present to the IOC membership at the candidate city briefing for IOC members and Olympic International Federations (summer or winter, depending on the process). This is an excellent opportunity for both the cities to showcase their projects and for the IOC members and International Federations to ask questions and evaluate the technical aspects of each candidature.

■ Host city election

Finally, during the host city election, the candidate cities make a final presentation to the IOC session and the IOC members vote by secret ballot and elect the host city. The newly elected host city is now obligated to abide by the host city contract it signed as part of Stage 3 with the IOC. The most relevant host city contract available from the IOC now is for the 2024 Olympic Games process as this is the only contract drafted post- Agenda 2020 reforms being implemented. The candidate city must sign and adhere to the host city contract as well as the host city operational requirements (see *Appendix 4E: IOC Host City Contract and Operational Requirements*).

■ Evaluation commission

The purpose of the evaluation commission is to:

- Analyze the cities' candidature file submissions.
- Verify the information presented by the candidate cities.
- Study the feasibility of the proposed plans.
- Determine each city's ability to deliver successful Games.
- Assess whether the Games would leave a positive legacy that meets the individual needs and long-term development plans of the respective city and region.

To further strengthen the analysis, the evaluation commission visits each city during Stage 3 of the Olympic candidature process.

The evaluation commission then publishes its report which highlights the challenges and opportunities presented by each candidature, and the sustainability and legacy proposals of each candidature (see *Appendix 11A: IOC Olympic Candidature Process*)

SECTION 11.1.5: CANADIAN OLYMPIC COMMITTEE REQUIREMENTS AND EVALUATION CRITERIA

The IOC requires that two parties send in binding letters of commitment expressing their mutual interest in bidding for an Olympic Games:

- 1) The bid city; and
- 2) The National Olympic Committee (the “NOC”), which in Canada’s case is the Canadian Olympic Committee.

From the date letters of commitment are due, the NOC and the bid city will be jointly responsible for all activities of the bid city as stated in the form of a letter of commitment required by the IOC. The NOC further represents that it will oversee the process to ensure compliance with the Olympic Charter and the candidature guidelines.

The COC will need to support and approve any bid emanating from a Canadian city. In the event that Calgary pursues bidding for the 2026 OPWG, formal approval of the COC membership (essentially the COC’s shareholders) would be required. Only those members whose sports are on the Olympic Programme (summer or winter), athletes and IOC members are eligible for a vote pertaining to the endorsement of a bid to host the OPWG. This would represent most COC members and would only exclude the very few COC members who represent the Pan-Am only sports (i.e., those not on the Olympic Programme). (See [Section 3.3](#) for feedback from COC members, and Canada’s High Performance Sport Community)

The COC has two meetings of its members each year, one in April and one in November, called session meetings. The session meetings are hosted across the country in various locations to accommodate the COC’s national membership. All materials to be presented to the members and all presentations must be provided in both of Canada’s official languages. To obtain a vote from the COC membership outside of a COC session would require additional cost and logistical issues for CBEC. Accordingly, if Calgary is to consider proceeding with a bid to host the 2026 OPWG, any future bid committee would ideally consider the COC’s timing and coordinate closely with them to convene a vote at the time of an existing COC Session meeting.

The COC has provided its own evaluation criteria that would form the basis for the consideration of any potential future vote. That criteria outlines – at a high-level – 18 points of consideration that the COC would expect to see addressed by Calgary if interested in pursuing a bid. Points of consideration encompass topics such as, but not limited to: vision, leadership team, financing, international winnability, and public engagement. See *Appendix 11D: Calgary Bid Evaluation Outline* for more information.



11.2 CLEAN GAMES

The IOC is responsible for delivering an anti-doping program for the Olympic Games that produces accurate and reliable testing outcomes to effectively deter cheating or detect any cheating that may occur. The IOC delegates the implementation of the program to the OCOG, but retains supervisory control and decision-making authority throughout, consistent with its ultimate responsibility (see *Appendix 4E: IOC Host City Contract and Operational Requirements*).

The World Anti-Doping Agency's presence is limited to independent observer status. However, WADA's skilled experts in laboratory and doping control procedures are available prior to and for the OCOG's design of its anti-doping program as well as throughout the Games. Their presence ensures that feedback and changes can be made in 'real-time' if necessary.

To design and implement the anti-doping program for the Olympic Games, a perspective OCOG would access expertise and support from Canada's national anti-doping organization: the Canadian Centre for Ethics in Sport. Canada and CCES are globally regarded as world leaders in anti-doping in sport. CCES upholds robust standards in anti-doping, and consistently acts in accordance and in compliance with the World Anti-Doping Code.

CCES also maintains regular communication and a strong partnership with WADA, which is headquartered in Montreal. Access to the expertise and anti-doping professionals at both CCES and WADA would enable the OCOG to design and implement a secure and reliable anti-doping program of the highest standard for the Olympic and Paralympic Winter Games.

Following the problems uncovered with the anti-doping control program at the Sochi OPWG, the IOC implemented further controls to provide a level playing field for all clean athletes at Rio 2016. This included targeted pre-tests and the re-analysis of stored samples from Beijing 2008 and London 2012, following an intelligence-gathering process that started in August 2015.

The IOC also has an ongoing program of re-analysis of all stored samples from Vancouver 2010, London 2012 and Sochi 2014. The re-analysis of samples from Sochi 2014 athletes from many different sports and countries will continue through to 2022. The IOC will continue to communicate on a case-by-case basis as soon as disciplinary procedures are completed, and by regularly posting results and disciplinary implications on its website.



11.3 PROCUREMENT

This section addresses only the IOC's requirements regarding procurement and does not touch on any procurement procedures, guidelines or processes which may be imposed by governmental funding partners at the municipal, provincial or federal level required for an OCOG to follow if it goes forward with a bid and/or Games.

SECTION 11.3.1: CANDIDATE CITY REQUIREMENTS

The IOC requires that any candidate city provide consideration for the Olympic marketing partners (IOC sponsors and COC sponsors – see [section 6.1](#)) by asking each candidate city to collaborate at all times with the IOC and COC to fully respect all contractual commitments undertaken by them with their sponsors. This would require, generally speaking, that when a candidate city requires products or services from the exclusive category of an Olympic marketing partner, preference should be given to the Olympic marketing partner as a provider or supplier and in some cases, use of the Olympic marketing partner will be mandatory. For example, when a bid city is hosting an event where beverages will be served, the candidate city would be required to purchase and provide only Coca-Cola brand beverages wherever reasonable, and no branding of competitive beverages should be visible (meaning beverages would be served in unbranded containers instead).

SECTION 11.3.2: HOST CITY (OCOG) REQUIREMENTS

The language from the host city contract operational requirements regarding procurement specific to the Olympic family of partners is set out here:

Procurement of Goods and Services by the OCOG:

“Procure from the relevant Olympic Marketing Partner, on an exclusive basis and in accordance with the conditions set out in the MPA, all the goods or services that are within the product categories of the Olympic Marketing Partners that the OCOG needs for the purposes of hosting of the Games and any other official events or activities organised by the OCOG (e.g. live sites, spectacles).” (see *Appendix 4E: IOC Host City Contract and Operational Requirements*, p. 55).

OCOGs are required to respect the rights of the Olympic family of partners insofar as no marketing rights should be granted to third-party competitors. This includes ensuring their supply rights are enforced for the Games, subject to applicable law. It is worth noting that the OCOGs are obliged to engage with certain Olympic family partners based on pre-negotiated agreements for the provision of turnkey solutions for the Games (for example, for the timing and

scoring systems and services are provided through Omega as an IOC sponsor, but at a mandated rate for the OCOG to then pay to Omega and ATOS for the services they provide). Similarly, ATOS is the information technology solutions partner of the IOC and is relied upon to install the necessary cabling and other technical components to ensure the Olympic broadcast. Otherwise, supply of specific products and services from the TOP Partners are subject to satisfaction of a set of “supply conditions”. This includes that the supply is budget- relieving, competitive in terms of quality and prices, and the like. In this case, the needs of the COC as a host territory NOC would be managed by the OCOG through the joint marketing program agreement that is an attachment to the host city contract and only provided in confidence to candidate cities who proceed through the candidature stages. More detail will be provided to Calgary if it launches a formal candidature process.

SECTION 11.3.3: CANADIAN PROCUREMENT AND LEGAL STANDARDS

Should Calgary proceed with a bid, it would comply with all Canadian applicable laws and regulations, specifically including, but not limited to, laws relating to anti-corruption and fair and ethical practices.



SECTION 12. RISK ASSESSMENT



12.0 OVERVIEW

Is it prudent for Calgary to make a bid for the 2026 Olympic and Paralympic Winter (OPWG) Games? This is the final and overarching question to answer in preparing this report. In developing our recommendation, we've aimed to address the following considerations:

- How much would it cost to prepare a bid?
- Where would the funding coming from?
- How successful would a Calgary bid likely be?
- What would be the benefits of making the bid, even if we were not successful?

In other words, this section is at the heart of whether making a bid is prudent by assessing the implications of a bid from a financial perspective as well as from the benefits that would accrue even if a bid is not successful.

At a high-level based on the known candidature guidelines and processes as of the date of this report¹, we believe a competitive bid would cost approximately C\$35 million plus a C\$5 million contingency. While a definitive funding model would require additional engagement with potential private funding sources (including corporate sponsors) and government, we have proposed an illustrative funding model based on our benchmarking. Under this model, a bid would have C\$10 million in private funding (or 25 per cent of the total) while governments would contribute the remaining C\$30 million. With an aim to having equal contributions from each order of government and the private sector we have illustratively proposed a funding model that is C\$10 million from each of the provincial and

¹ Based on the 2024 Candidature Guidelines, see *Appendix 11B*

federal governments and an incremental C\$5 million from the City of Calgary (recognizing their contribution already to CBEC). In addition, our illustrative funding model proposes the City cover the C\$5 million contingency should it be required.

While there is no guarantee a bid would ultimately be successful if pursued, we believe a Calgary bid would be competitive given its alignment with the International Olympic Committee (IOC)'s Agenda 2020 (see *Appendix 4B*) and Calgary and Canada's global reputation. Furthermore, even an unsuccessful bid would provide value for the City in the form of an opportunity to increase its brand awareness and brand recognition through sustained media coverage as well as building its capacity to bid for and host major events in the future.

If the decision is made to pursue a bid, a standalone legal entity (separate from the CBEC) known as BidCo would need to be formed. A Calgary BidCo would then be responsible for organizing and running Calgary's bid if pursued. By way of context, a Calgary BidCo would have approximately 18 months (from the early spring of 2018 to the late summer of 2019) to prepare Calgary's submissions to the IOC after the start of the formal IOC process. Broadly, three submissions must be made during the IOC bid¹, which cover:

- The detailed concept, vision and strategy for successfully hosting the Games.
- The proposed governance and legal aspects of hosting as well as a plan to fund the construction or renovation of venues.
- The plan to deliver the Games, the proposed Olympic experience, and detailed budget and legacy resulting from the Games.

Additionally, if Calgary chooses to proceed, there may be an opportunity to selectively advance CBEC's work through the fall of 2017 and early winter of 2018.

¹ The requirements of the current IOC Winter Games Candidature Process, as currently known, are outlined in [Section 11](#).

12.1 RISKS ASSOCIATED WITH A BID

12.1.1 COST BREAKDOWN OF A BID SUBMISSION

A bid by Calgary for the 2026 Games would cost approximately C\$35 million, with an additional C\$5 million contingency, with major cost categories broken down as follows:

- C\$11 million for communications and marketing costs including advertising, creative services and community relations.
- C\$9 million for finance, administration, and executive including professional services and executives' expenses.
- C\$8 million for international relations costs including travel and presentations.
- C\$7 million for bid development including venue, operations, and financial planning.

The development of Calgary's 2026 Olympic bid budget used both top-down estimates and bottom-up estimates. Benchmarking of the last four Winter Games bid cycles (2010, 2014, 2018 and 2022 Games) provided a top-down perspective, with an average winning bid costing approximately C\$41 million. Additionally, a bottom-up estimate was built based on Vancouver's detailed bid budget. Each line item was analyzed in detail to determine its relevance for a Calgary bid with expert input provided by Terry Wright (former VANOC Executive Vice President).

Overall, the proposed Calgary BidCo's budget was developed using the following principles:

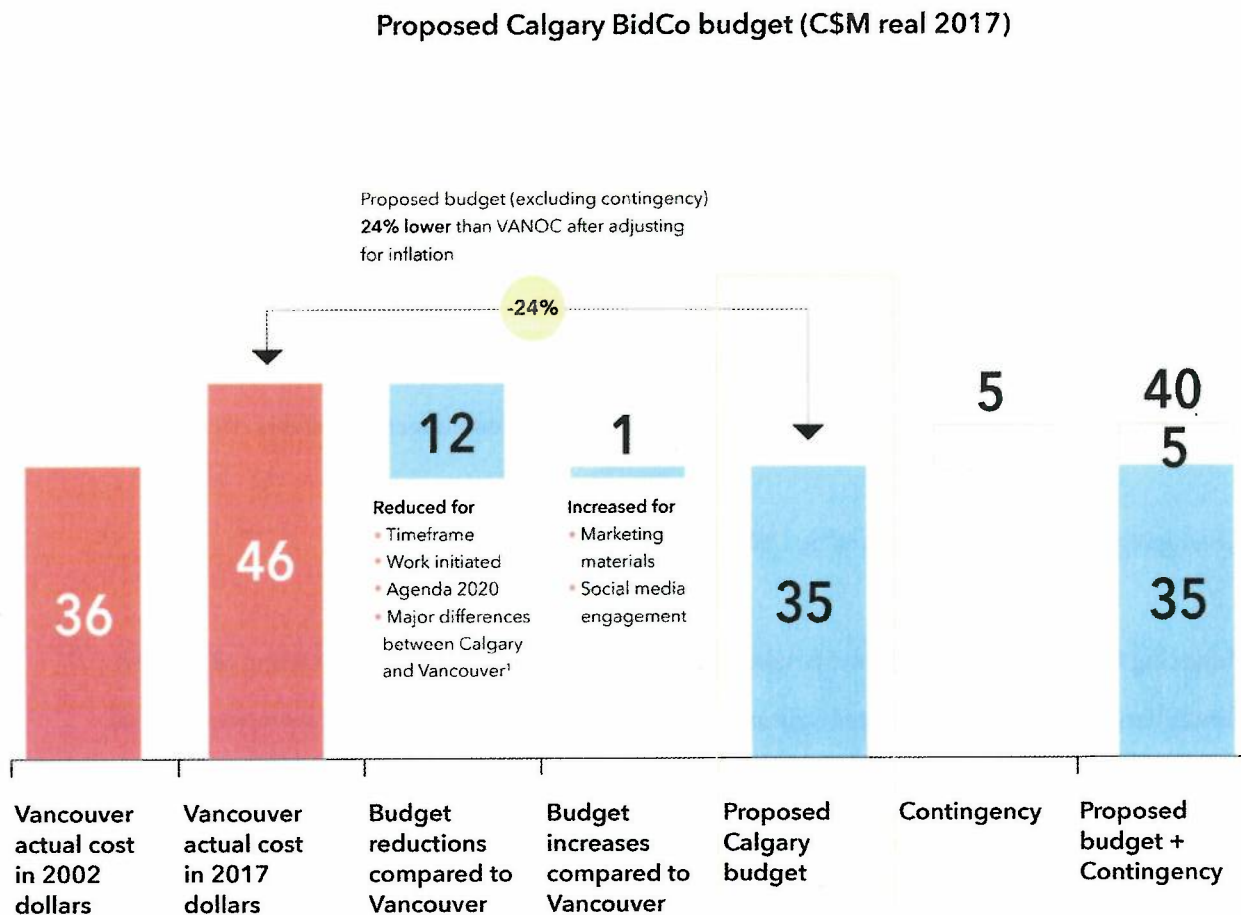
- Assumed a **similar scope** to Vancouver BidCo for evaluating venue and infrastructure requirements while also acknowledging the work CBEC has done in this area.
- Aimed to be **conservative** in budget reductions compared to Vancouver to avoid compromising the competitiveness of a bid.
- Assumed relatively **small impact of Agenda 2020** (see *Appendix 4B*) on costs – while the reforms laid out in Agenda 2020 are meant to reduce international travel and presentation costs, we believe that competition between bids will limit cost reductions.
- Increased the potential for **value-in-kind and philanthropic fundraising** where applicable.

The proposed Calgary BidCo budget of C\$35 million would be approximately 24 per cent lower than Vancouver BidCo's actual costs, which were C\$46 million (adjusted for inflation). We achieved budget reductions over Vancouver by:

- Leveraging work already completed by CBEC to date.
- Adjusting for the shorter timeframe to complete the bid based on a possible bid lasting 18 months versus Vancouver's bid which lasted approximately 24 months (less time equals less time to spend). Our current understanding is that the bid phase for the 2026 Games would likely stretch approximately 18 months from March or April of 2018 through to the late summer or early fall of 2019.
- Factoring in the impact of Agenda 2020 to drive budget savings by reducing international travel and presentation requirements as well as leveraging IOC communication resources.

We have also included a C\$5 million contingency in addition to the C\$35 million cost estimate. We believe that including such a contingency is prudent as the IOC has not yet released the details of the bid process and these details will only be known in Summer 2017 (as outlined in [Section 11.1](#)). Based on the principles outlined above, we believe we have developed a conservative estimate, along with an additional C\$5 million contingency to reflect the current stage of planning and information available. Figures 12.1-12.3 illustrate our proposed bid budget in comparison to Vancouver's in greater detail.

Figure 12.1 Proposed Calgary BidCo budget in comparison to Vancouver



1. Includes reduced need for athletic development investment which was part of Vancouver's bid commitment

Source
VANCOUVER BID FINANCIAL INFORMATION; ECONOMIST
INTELLIGENCE UNIT; BCG ANALYSIS

Figure 12.2 Vancouver costs scaled to build Calgary's bid estimate

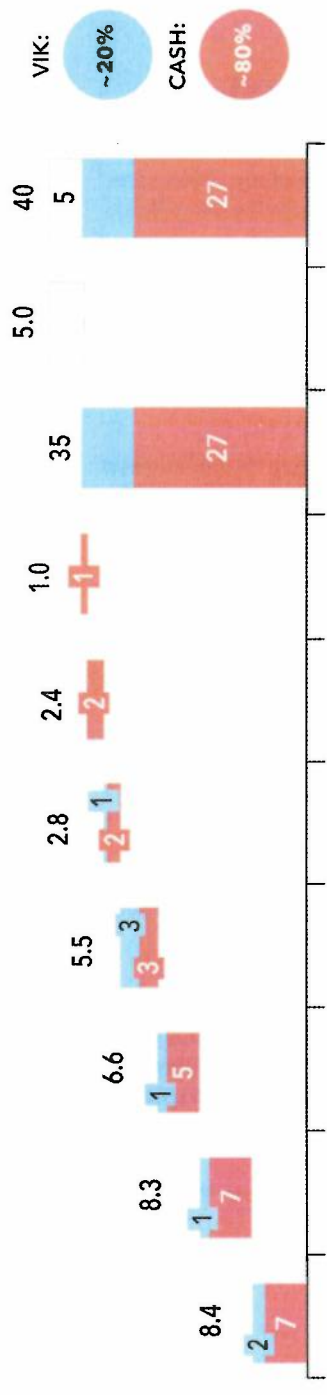
Factor	Rationale	Example	Change Factor	Change ¹ (\$M 2017 real CAD)
1 Timeframe	Calgary BidCo has shorter timeframe Vancouver BidCo ran for ~2 years Calgary BidCo will run for ~18 months	Staff and consulting costs that span the entire BidCo	-15%	-\$2.7M
2 Work initiated by CBEC	Planning by CBEC for venue and operational plans will prepare/reduce work for BidCo	Initial high level venue plans as a starting point for BidCo	-20%	-\$0.8M
3 Work completed by CBEC	Specific pieces of work that CBEC has completed that will no longer be required of BidCo	Ticketing model/estimates Economic Impact models	-75%	-\$0.2M
4 Agenda 2020	Cost reductions opportunities created by Agenda 2020	Travel costs for IOC related trips	-20%	-\$0.5M
5 Vancouver Specific Costs	Costs that were specific to Vancouver's bid situation that Calgary will not be required to incur	Sport and Athlete Development costs	-100%	-\$6.5M
6 Situational Costs	Costs where situational differences will allow Calgary to complete at a lower cost	Bid book costs - bid books no longer necessary but some are still prepared	-50%	-\$1.2M
7 Major Cost Increases	Costs that were not required for Vancouver but that Calgary will need to include in budget	Now standard to have 3D graphics and virtual reality visualizations of proposed venues - additional production costs	+300%	+\$1.0M

1. Dollar change in budget values when applying change factor to appropriate line items in Vancouver Actual costs

Source
VANCOUVER BID FINANCIAL INFORMATION; ECONOMIST
INTELLIGENCE UNIT; BCG ANALYSIS

Figure 12.3 Proposed Calgary budget breakdown

Proposed BidCo budget (C\$M real 2017)



Vancouver BidCo actual cost (C\$M 2017)

Category	Value (C\$M)	Delta vs. Vancouver
Communications	8.5	-0.1
International Relations	10.2	-1.9
Bid Development	7.8	-1.2
Finance and Administration	6.2	-0.7
Executive	3.6	-0.8
Marketing	3.0	-0.6
Sport and Athletic	6.4	-5.4
Continuity	-	+5.0
Total	46	-5.7

Includes:

- Advertising and bid awareness
- Creative and production services
- Community relations
- Travel costs
- Promotion at earlier Olympic games
- International Relations consultants
- International Federation plans
- Technical venue plans
- Ops plans
- Financial plans
- Economic studies
- Office space
- IT equipment
- Office administration expenses
- Professional services
- Executive Expenses
- Legal advice
- Travel expenses for executives and board
- Events to raise funds and support for BidCo
- Fundraising consultant costs
- Sport development programs
- Programs committed to during big competition
- World Host program

Note: VIK means Value in Kind which refers to contributions from external parties (e.g., sponsors, Canadian Olympic Committee) in the form of goods, services and labour in lieu of cash

Source: VANCOUVER BID FINANCIAL INFORMATION; ECONOMIST INTELLIGENCE UNITE; BCG ANALYSIS

SECTION 12.1.2: BID FUNDING

Vancouver's BidCo was funded both privately (approximately 40 per cent) and publicly (approximately 60 per cent including governments and Crown Corporation sponsorships) whereas our benchmarking suggests a typical bid is 30 per cent privately funded and 70 per cent publicly funded. Based on high-level analysis of how a Calgary BidCo could be funded, we would anticipate a Calgary BidCo to be both privately and publicly funded. We have included one illustrative model which includes an even split of funding across each of the three orders of government (federal, provincial, and municipal) and private sources. We equally recognize this funding model is one option and other possibilities exist. CBEC has not engaged with potential donors or sponsors of a potential BidCo to test the level of funding possible as this work was outside of our scope.

Based on our benchmarking, research and discussions with stakeholders, our illustrative funding model anticipates a funding breakdown as follows:

- Approximately C\$10 million of private funding which would include:

Corporate sponsorship: This would be from existing Canadian Olympic Committee (COC) sponsors or identifying new sponsors within categories not currently filled by IOC or COC partners. CBEC anticipates the total amount of corporate sponsorship that could be raised by a Calgary BidCo would be lower than Vancouver. This reduction is because the IOC has imposed a new rule as part of the 2024 bid process that would prevent a prospective Calgary BidCo from obtaining sponsorship from any party who is not currently a COC sponsor, or from an "open" (not currently occupied) sponsorship category. IOC sponsors are not allowed to become sponsors of any bid, but their exclusive Olympic categories must still be protected, meaning a prospective Calgary BidCo could not seek sponsorship from a competitor. Additionally, the shorter timeframe of a bid will limit the time and opportunity available to secure private funding relative to Vancouver.

Corporate and individual donations: CBEC anticipates a Calgary BidCo might be able to raise more funds than Vancouver as philanthropic donations were not a focus for the Vancouver bid. A prospective Calgary BidCo might also be successful targeting a group of current corporate leaders who were involved in or impressed by the 1988 Calgary Winter Olympic Games. These leaders might like to see Calgary host the Games again to revive the Olympic spirit and sport infrastructure, which is a unique opportunity for a Calgary bid.

The Canadian Olympic Committee: While the COC did not support the Vancouver BidCo or VANOC financially, CBEC has met with the COC and understands they would consider providing meaningful assistance and collaboration throughout any bid process. While detailed discussions have not occurred on the topic of bid support, the COC may choose to provide value-in-kind support for a Calgary BidCo. Examples include providing staff and resources who are knowledgeable regarding key aspects of a bid (including international relations, communications, digital and social media, finance, and human resources)

Approximately C\$25 million of public funding, which in our illustrative funding model, would be split as follows:

- Approximately C\$10 million from the federal government.
- Approximately C\$10 million from the provincial government.

Approximately C\$5 million in *new funding* from the municipal government, plus C\$5 million has already

- been contributed via the CBEC funding. The municipal government would also cover the C\$5 million in contingency if it were to be required.

See Figures 12.4 and 12.5 for more detail.

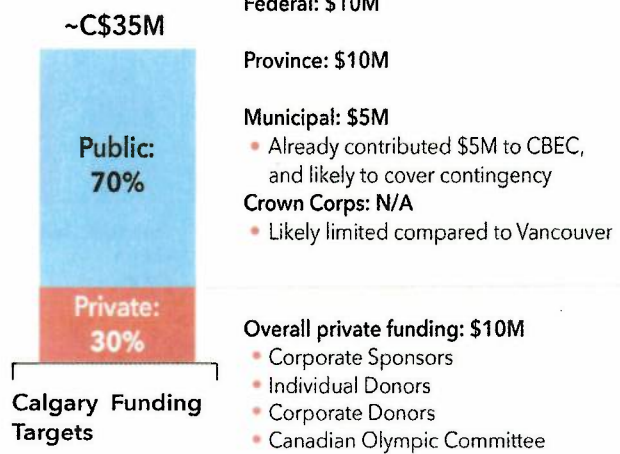
Figure 12.4 Illustrative BidCo funded model with private and public contributions

Target mix of public and private funding based on benchmarking of past bids

Calgary BidCo could targeting ~30% private funding for bid in illustrative model

BidCo Revenues:
(C\$M real 2017)

Illustrative Calgary BidCo
Revenues Model (C\$M real 2017)

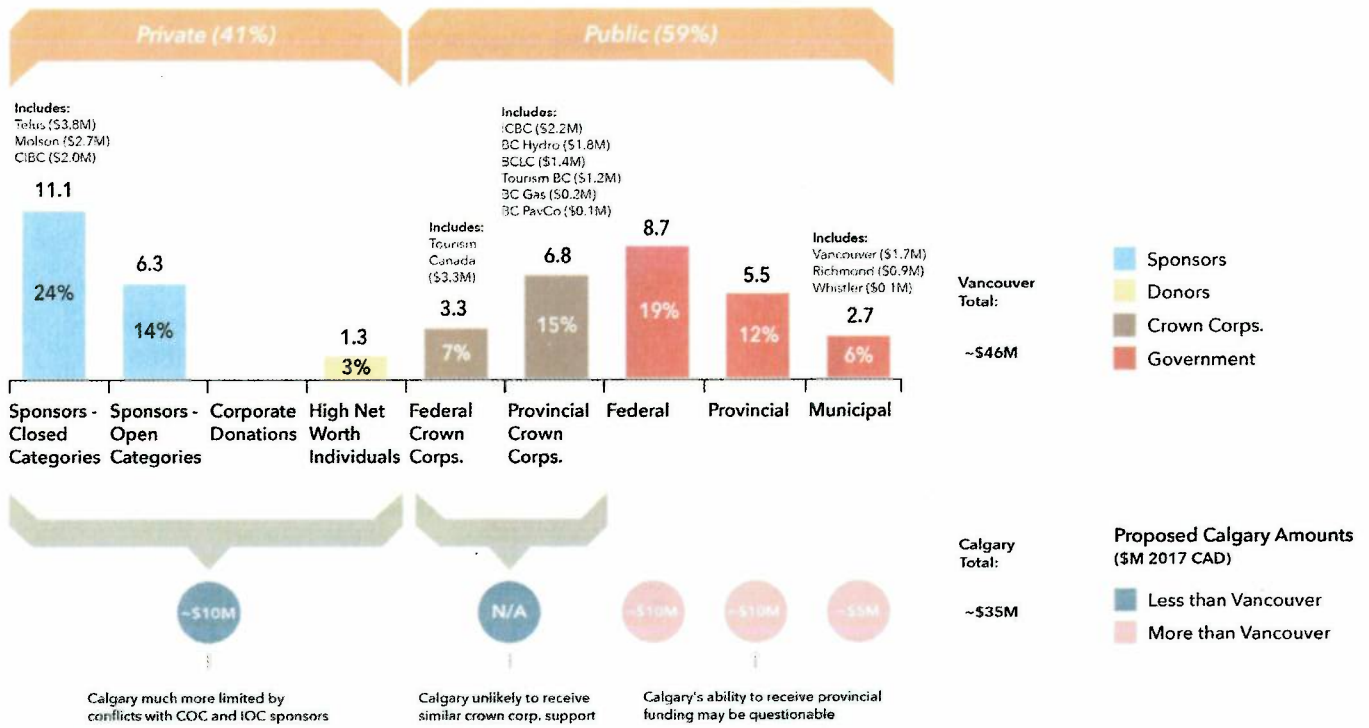


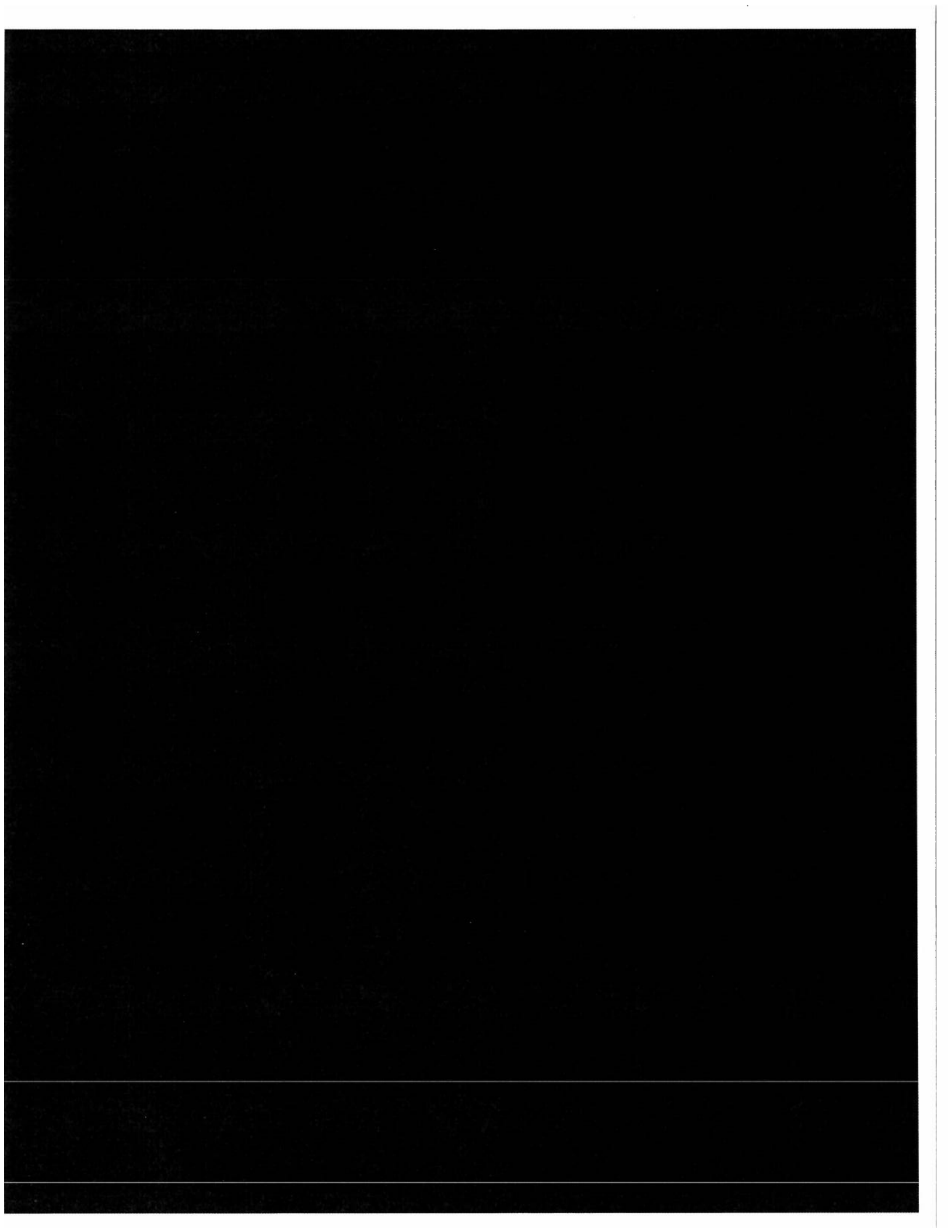
The illustrative funding model targets an even split with 25% from each party (Federal, Province, Municipal, Private)

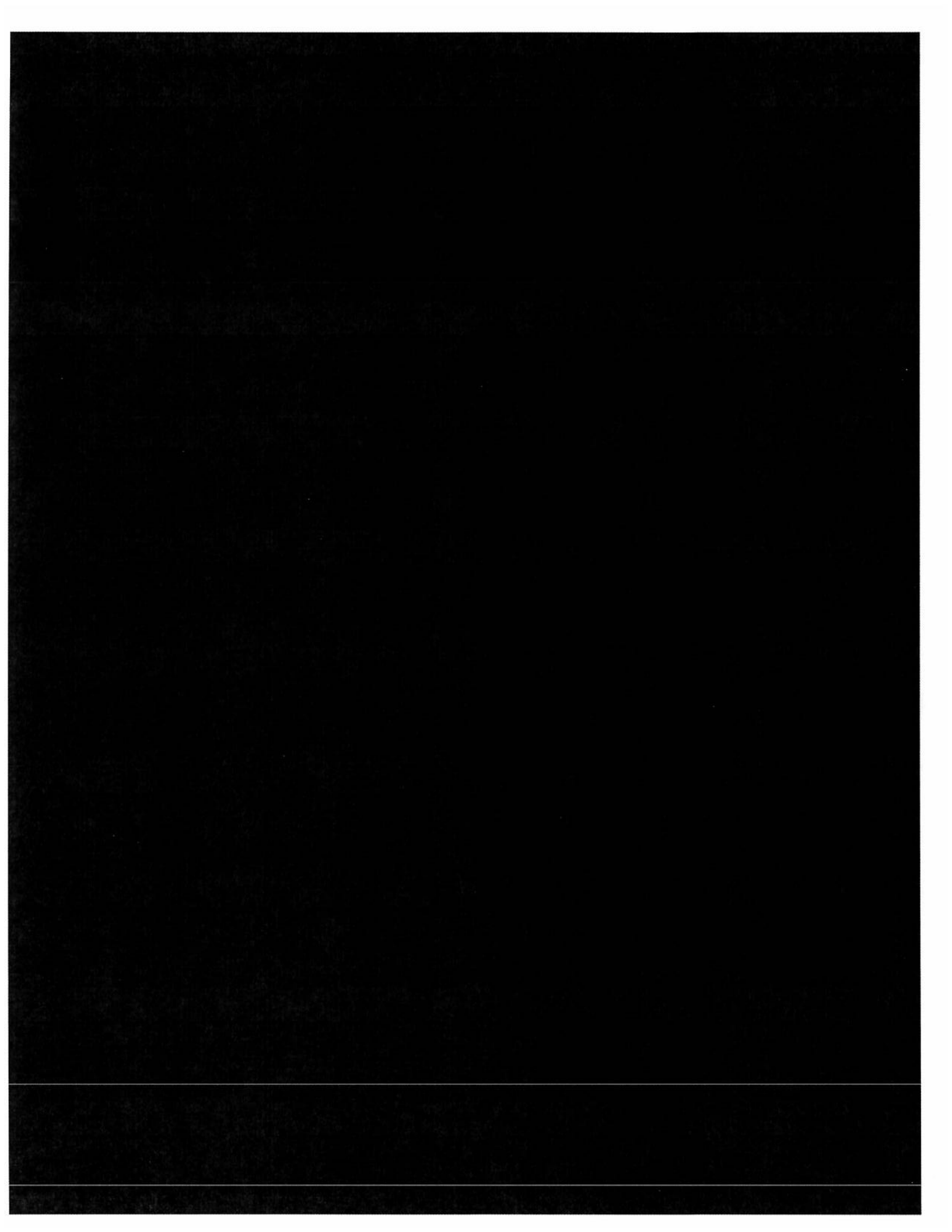
Source
2010-2022 CANDIDATURE APPLICATION REPORTS, VANCOUVER BID FINANCIAL INFORMATION; PUBLIC NEWS SOURCES; ECONOMIST INTELLIGENCE UNIT; BCG ANALYSIS

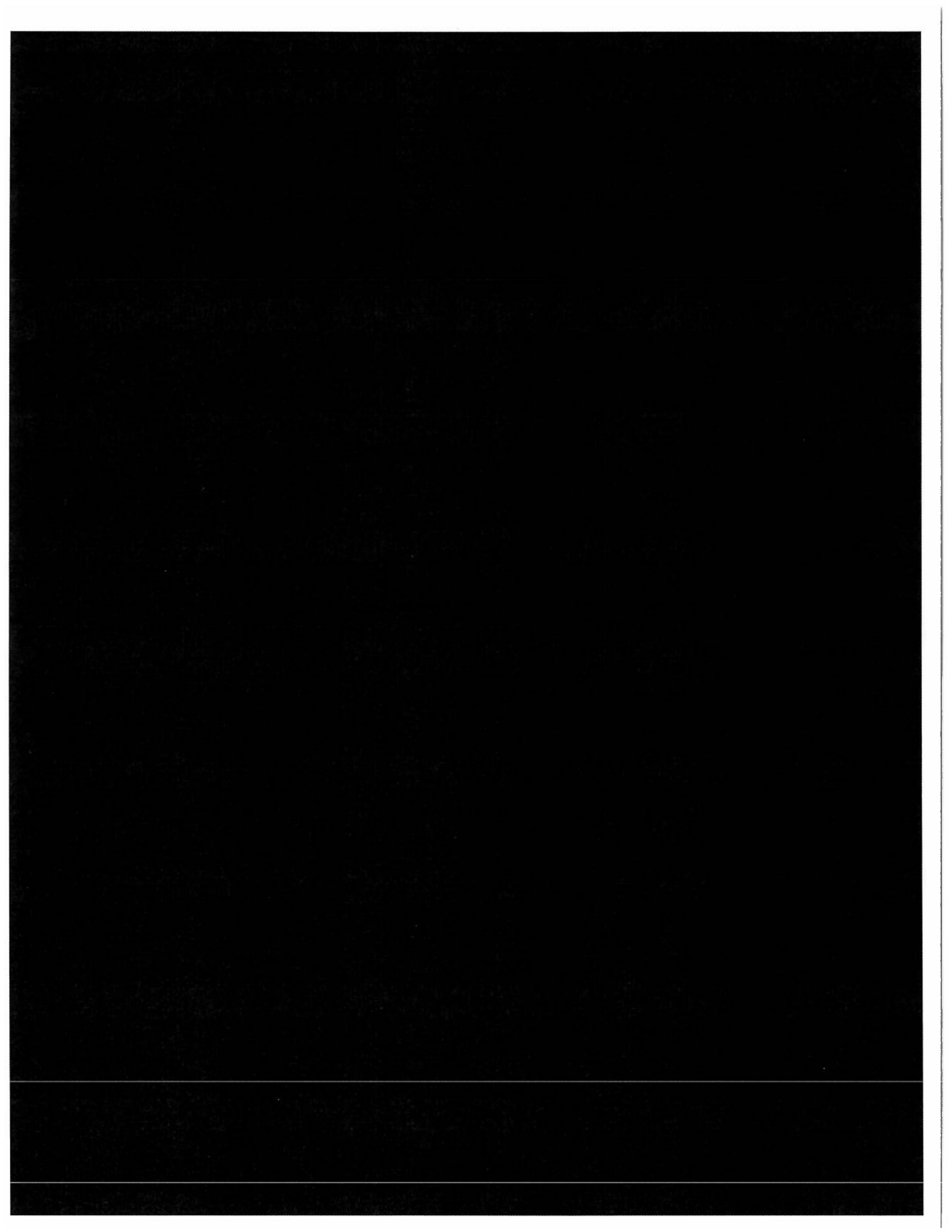
Figure 12.5 Vancouver BidCo revenue sources and comparison to Calgary

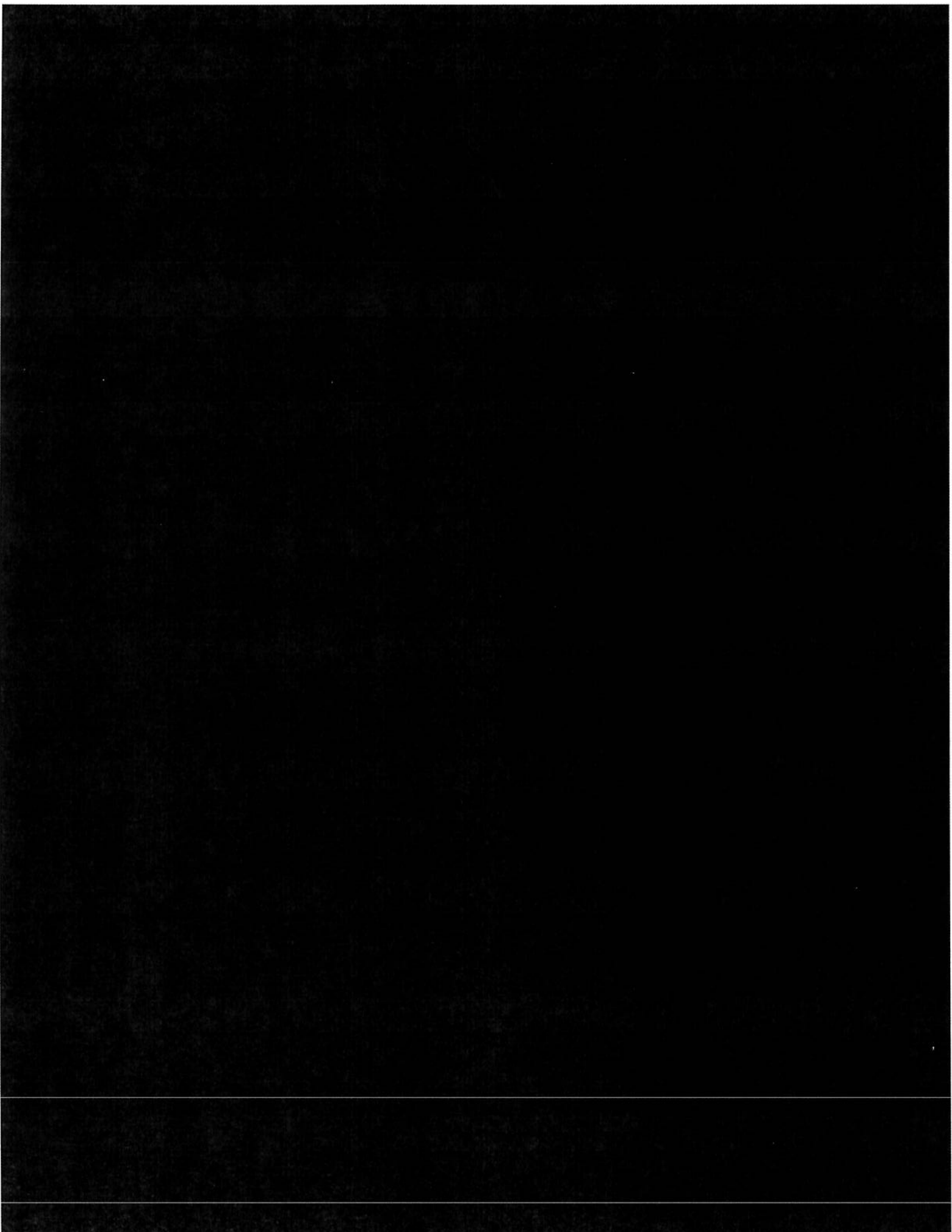
Vancouver BidCo revenue sources (C\$M real 2017)

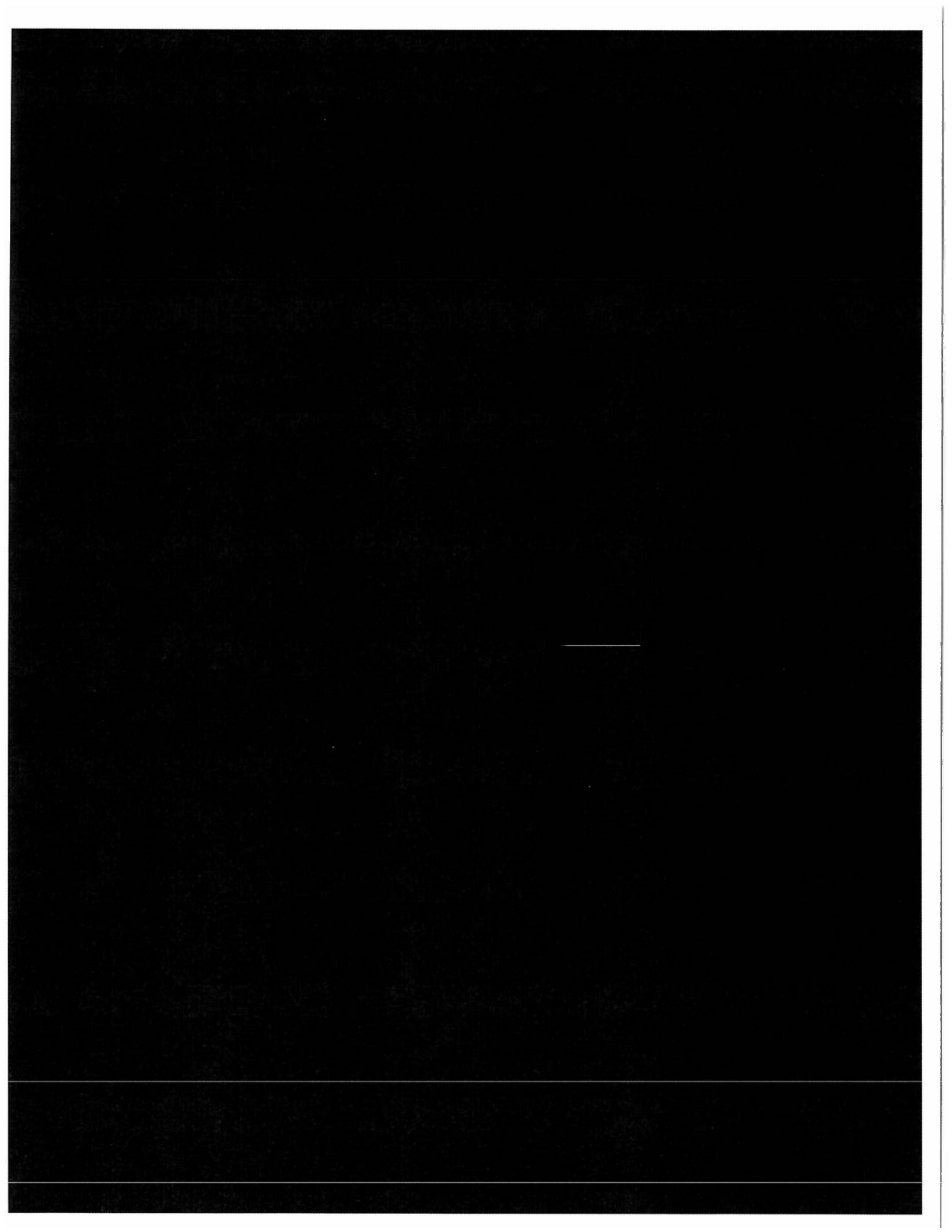


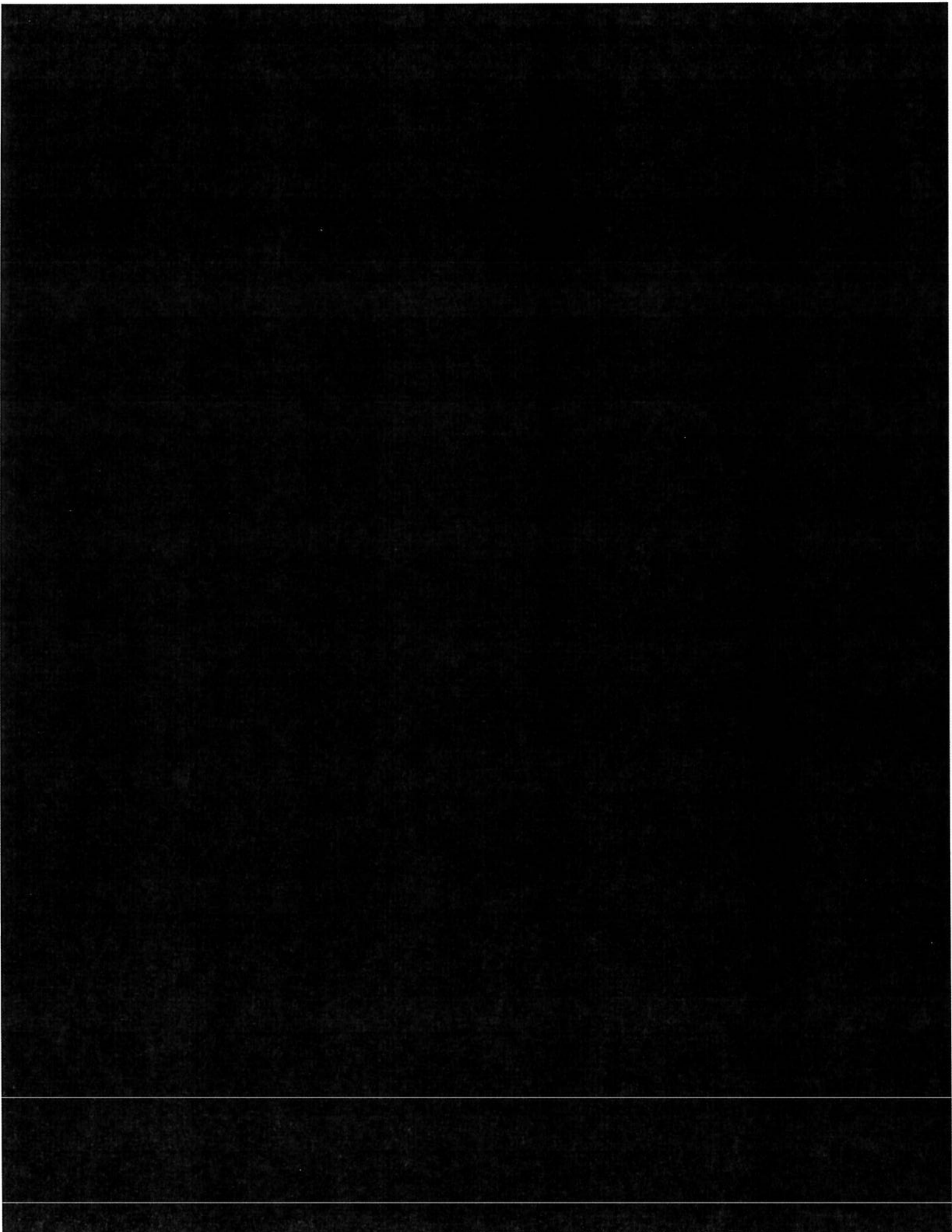


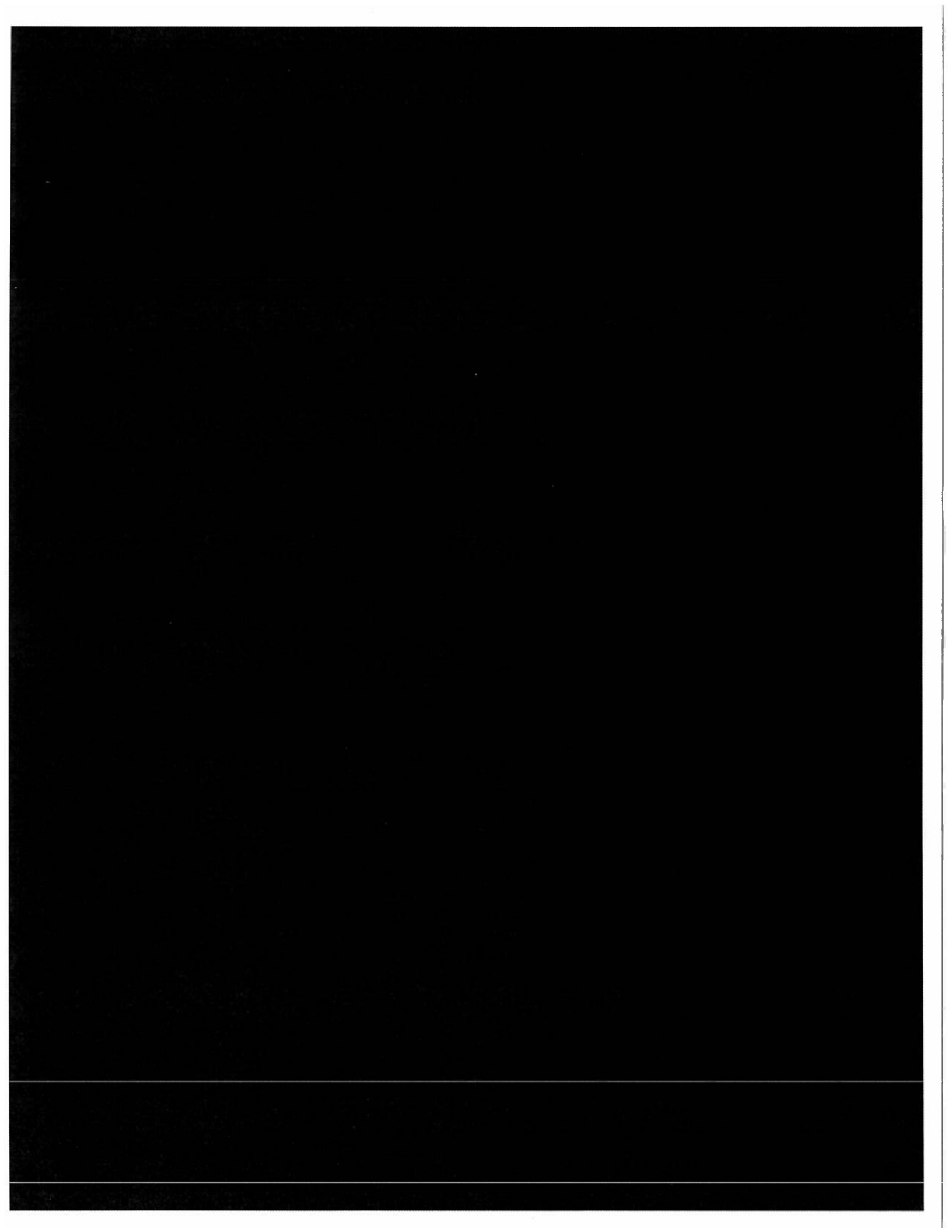


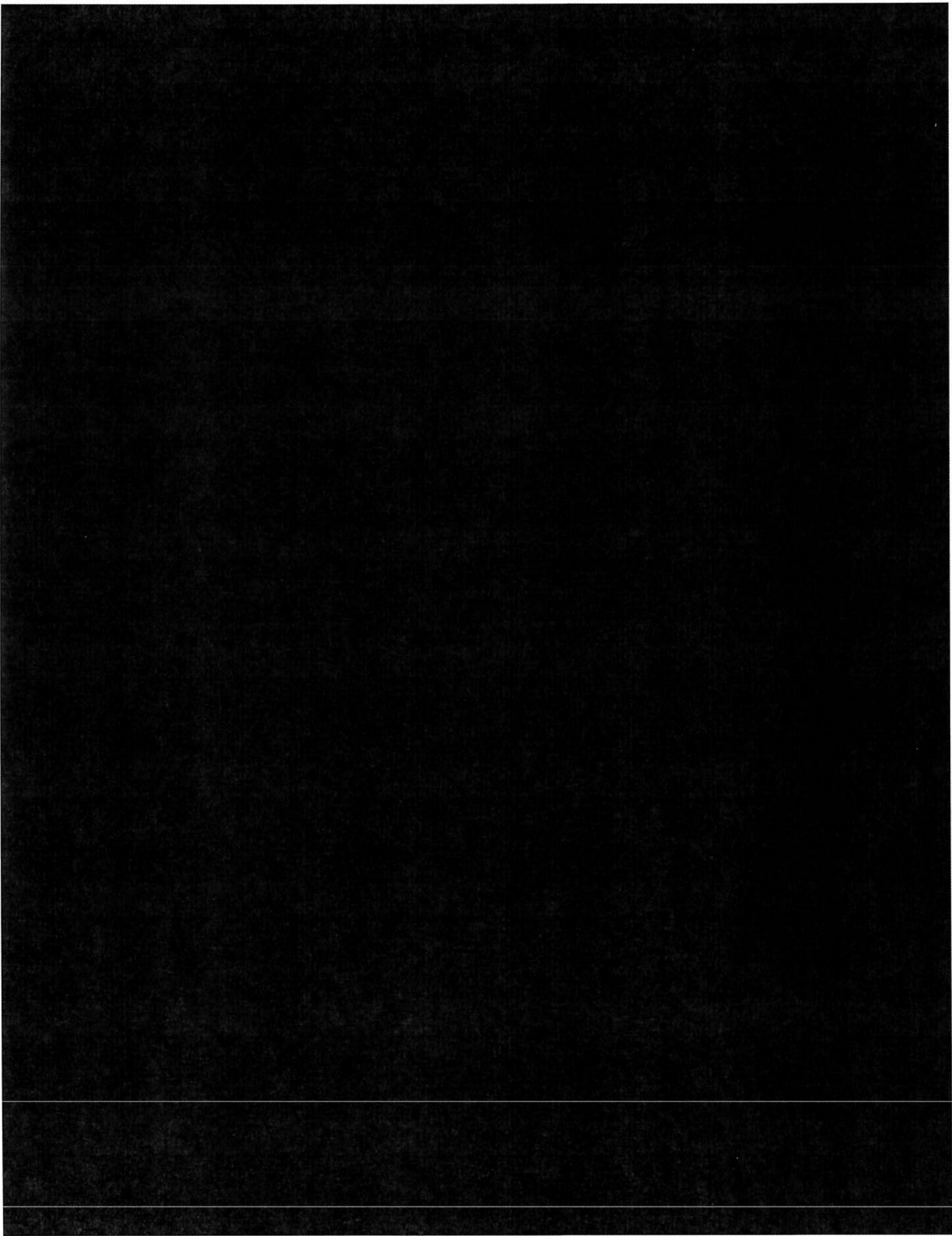














12.3 THE VALUE OF A BID

While there is no certainty Calgary would be elected as the host city if a bid is pursued, we believe that regardless of outcome, there are meaningful benefits to bidding that would justify the costs associated with a bid.

First, a bid would provide Calgary with an opportunity to enhance its brand awareness and brand perceptions, thereby supporting the city and region's ability to attract visitors from other markets and new investment opportunities. Both of these goals are existing priorities for Tourism Calgary and Calgary Economic Development respectively.

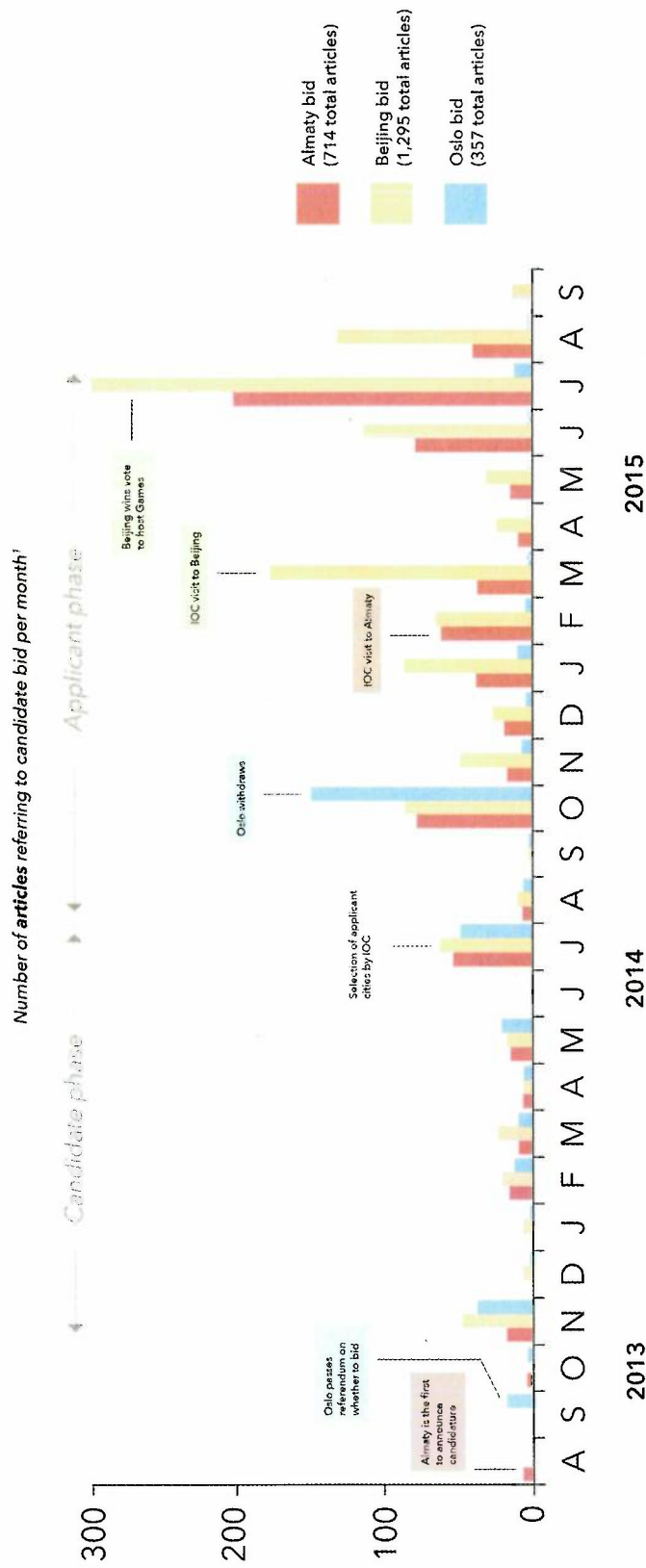
A review of the 2022 Winter Games and 2024 Summer Games bid cycles also highlights that bid cities receive extensive media attention throughout the bid cycle.

In the context of the 2022 bid cycle, all three cities in the applicant phase – Oslo (Norway), Almaty (Kazakhstan) and Beijing (China) – saw sustained media coverage. The Oslo bid, which ended approximately three months into the applicant phase was mentioned in over 350 articles while the Almaty and Beijing bids, which went through the entire process, were the focus of over 700 and 1,250 articles respectively.⁴ While there was a consistent level of media exposure, the number of articles tended to peak around major milestones in the bid process (including IOC visits to the city). Importantly, the media coverage of a bid is often driven by international and non-local sources. For example, in the 2022 bid cycle, at least eight of the top 10 sources (in terms of number of articles) were not local for each bid. See Figure 12.6 for additional detail.

⁴The number of articles mentioned in this section are based on media searches using Factiva, a news search and aggregation tool. In relation to the 2022 bid cycle, a search was conducted for articles that included the host city's name, bid (or bidding or similar terms), Olympic (or Olympics or similar terms) and 2022 within the title or first paragraph of the article. The search spanned from August 1, 2013 (approximately three months before the start of the candidate phase) through to September 30, 2015 (two months after the host city election). It is important to note that the process used for the 2022 bid cycle has since been changed to include an invitation phase where host cities can engage with the IOC without formally committing to a bid and a single candidature stage once cities formally declare their intent to bid.

Figure 12.6 Number of articles for 2022 Winter Games bid cities

Beijing, Almaty, and Oslo bids all received significant media mentions through the bid process



Aligning bid vision and city brand can help maximize the value of the media attention for the City outside the Olympic context

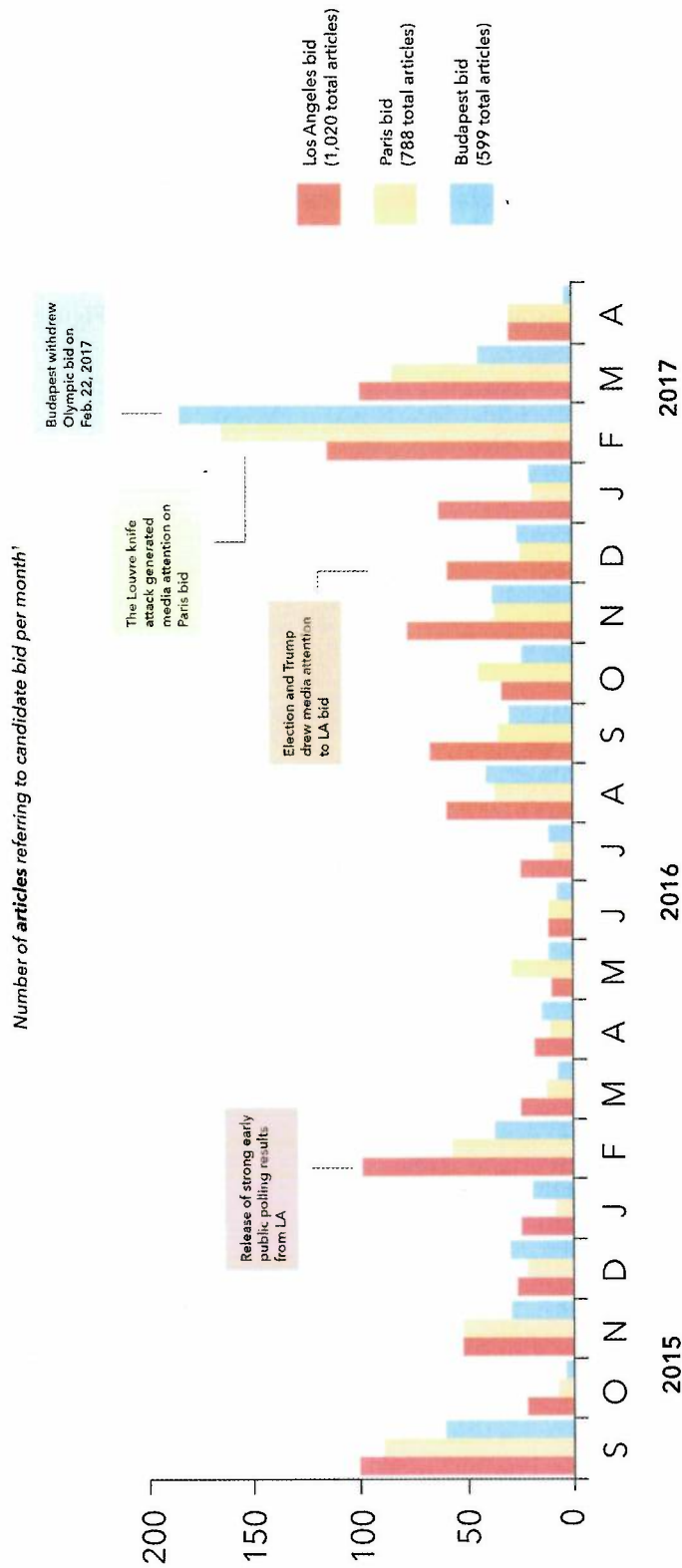
1. Factiva media search - all articles containing Almaty, Beijing or Oslo; bid*; Olympic*; and 2022 in the title or first paragraph; date range August 1, 2013 through September 30, 2015
 Note: Asterisk ("*") in search terms is intended to broaden search; for example, "bid*" would return results containing bid, bidding, bids, etc.

As a second example, we also looked at the bid process to date for the 2024 Summer Games – the first bid cycle to be conducted after the implementation of Agenda 2020 reforms. Much like the 2022 bid cities, Los Angeles (United States), Paris (France), and Budapest (Hungary), which withdrew, the 2024 bid cities have all seen sustained media coverage from international sources throughout the bid with spikes tied to bid milestones as well as the broader political context. In the context of the 2024 bid cycle at least seven of the top 10 sources for articles are not local, again highlighting the opportunity a bid offers for sustained international media coverage. Figure 12.7 highlights the media coverage for the 2024 bid cycle.⁵

⁵ The search for articles related to the 2024 bid cycle was conducted using the same search terms as described above for the 2022 bid cycle with a date range of September 15, 2015 (the start of the IOC candidature phase) through April 24, 2017.

Figure 12.7 Number of articles for 2024 Summer Games bid cities

Los Angeles, Paris and Budapest bids all received significant media mentions through the bid process










Cities continue to see media coverage after changes to process under Agenda 2020 (e.g., marketing restrictions)

1. Factiva media search - all articles containing Budapest, Paris or Los Angeles; bid*; Olympic*; and 2024 in the title or first paragraph; date range September 15, 2015 through April 24, 2017
 Note: Asterisk (“*”) in search terms is intended to broaden search; for example, “bid*” would return results containing bid, bidding, bids, etc.

In summary, we believe these two bid cycles illustrate the opportunity a bid would present for Calgary to increase its global brand awareness and help reach, new international audiences.

Beyond traditional media, outlined above, social media has become a new channel through which bids and bid cities can engage global audience to help build brand awareness. Each of the 2024 bid cities have built social media followings across multiple platforms with regular content. For example, the Paris 2024 bid Instagram account has 21,000 followers and 253 posts (as of May 10, 2017) since July 2015, equivalent to posting approximately once every three days. These platforms, shown in Figure 12.8. provide a new opportunity that could be leveraged to enhance awareness about Calgary and a Calgary bid.

Figure 12.8 Overview of 2024 bid city social media accounts

					Social media innovations and successes
	1,233K likes ¹	1,28K followers 2.3K tweets	22K followers 290 posts	1.1K subscribers 302K total views	LA bid team partnered with Snapchat to have LA2024 logo as a "geofilter" in the app
	285K likes	95K followers 6.4K tweets	21K followers 253 posts	1.0K subscribers 97K total views	'Made for Sharing' Campaign included a mobile app encouraging users to show support by getting active #PARIS2024 reached 1 billion impressions across 200 countries within 100 days ²
	68K likes	1K followers 0.4K tweets	4K followers 362 posts	0.7K subscribers 384K total views	Budapest 2024 bid launch video was viewed more than 250,000 times

1. Several sources have speculated that a significant amount of LA2024 Facebook likes may have come from paid sources

2. Based on report by social media marketing company Visibrain

A second benefit of a bid, regardless of outcome, would be the opportunity to enhance Calgary’s capacity to bid for and host major events, especially sporting events. A bid for the Winter Games would signal Calgary’s intent to pursue major sporting events and would provide an opportunity to directly highlight Calgary’s ability to host to international sporting federations, including the development of venue and sport-specific plans. This would also provide an opportunity for civic participation, civic pride and volunteerism.

Additionally, planning for the 2026 OPWG entails planning for one of the largest scale winter sporting events in terms of number of events (sporting and cultural), athletes, security requirements and visitors, among other considerations. As a result, the detailed plans developed as part of an Olympic bid could be leveraged and scaled to future events on which Calgary wants to bid. In other words, the detailed planning required for the Games would provide a foundation on which bids and hosting plans for other events could be built. Figure 12.9 highlights select elements of plans to host major events and identifies how the detailed analysis during a bid for the Games would provide a foundation for future events.

Figure 12.9 Key elements of hosting plans and links to Olympic planning

Key elements of plans to host any event...	...would be covered as part of Olympic bid planning
Transportation & accommodation logistics	<ul style="list-style-type: none"> Building a detailed transportation plan that supports moving tens of thousands of attendees, athletes, security and workers between venues and facilities throughout the region reductions compared to Vancouver Identifying solutions to accommodate various stakeholders including spectators & workers
Venues & facilities renewal plans	<ul style="list-style-type: none"> Reviewing sports venues and facilities and providing detailed and actionable solutions to gaps identified that can proceed regardless of a bid for each facility and venue
Communications, marketing & media	<ul style="list-style-type: none"> Developing a comprehensive approach to engaging stakeholder groups to understand their perspectives vis-a-vis the Games and other events Using the media to showcase Calgary’s ability and desire to host major sports events
Sustainability and social inclusion strategies	<ul style="list-style-type: none"> Building an event strategy for sustainability, social inclusion, and environmental stewardship (e.g. carbon footprint, waste management, and ethical sourcing)
Non-sporting activity plans	<ul style="list-style-type: none"> Developing plans for incorporating non-sporting venues and facilities into the event, such as public squares for “live sites” or for ceremonies Identifying opportunities to leverage the event to advance Calgary’s social, cultural and civic objectives
Local bid capacity	<ul style="list-style-type: none"> Increasing the awareness and experience of local bid stakeholders on the process of bidding for major sporting events

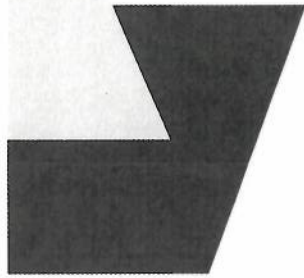
Together, we believe these two elements (the increased brand awareness and brand perceptions as well as building capacity to host) would provide Calgary with value - regardless of the outcome - if a bid is pursued. By leveraging a bid to build Calgary's brand awareness and profile as well as enhancing the community's ability to bid for, and host, major events, we believe a bid would contribute to advancing existing objectives for the City of Calgary and other key stakeholders (including the Calgary Sport Tourism Authority, Tourism Calgary and Calgary Economic Development).

The bid budget outlined above in [Section 12.1.1](#) and Figure 12.3 includes approximately C\$11 million of costs that would support the realization of the two benefits outlined above including:

- \$6 million within communications and marketing costs that would help build international awareness of the bid, develop a positive perception of the bid vision, and market Calgary as a host city

- \$4 million within bid development costs for the development of accommodation, sustainability, cultural celebration and technical hosting plans, as well as securing International Sports Federations approval; all of these would help build Calgary's capacity to bid and provide plans that could be leveraged for future events.

- \$1 million in the sport development budget to help attract major sporting events ahead of the Games and engage International Sport Federations



12.4

RISKS ASSOCIATED WITH NOT BIDDING

CBEC will present Risks Associated With Not Bidding along with its recommendations on July 24th to City Council.





12.5
**RISKS ASSOCIATED
WITH HOSTING**

CBEC will present Risks Associated With Hosting along with its recommendations on July 24th to City Council.

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- 4N Detailed Venue Analysis: Olympic Oval
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[REDACTED]
4R Detailed Venue Analysis: Canmore Nordic Centre

[REDACTED]
[REDACTED]
4U Detailed Venue Analysis: Mountain Media Centre

4V Detailed Venue Analysis: Training Venues

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
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8B Evaluating the Economic Impacts of Calgary's Olympic Bid – a report by the Conference Board of Canada

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